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JOURNAL

OF THE

ASIATIC SOCIETY.

EXTRA NUMBER.

CATALOGUE OF REPTILES

IN THE

MUSEUM OF THE ASIATIC SOCIETY

OF

BENGAL.

BY

W. THEOBALD, JUN., ESQ.

[*Published by order of the Council of the Asiatic Society, Bengal.*]

CALCUTTA:

PRINTED AT THE BAPTIST MISSION PRESS.

1868.

8. N.

EXPLANATORY NOTICE.

THE printing of this Catalogue was commenced in 1865, shortly after the receipt of Mr. W. Theobald's MSS.; but in consequence of the difficulties experienced in correcting proofs, and also in consequence of insufficient instructions regarding the execution of the plates having been at first issued, a delay of nearly three years has occurred in its publication. This delay is greatly to be regretted, because many new species and genera of reptiles are described in this paper. The dates of publication have accordingly to be rectified. The Catalogue has been printed by order of the Council, and is now issued as an extra number of the Journal.

The Nat. Hist. Secretary,
Asiatic Society, Bengal.

Calcutta, June, 1868.

ERRATA

(*In the Press.*)

For "Gunther" read passim "Günther."

Page 9, line 18, from above for "caustic1y" read "caustically."

„ 9, „ 32 „ „ for "Dum et Bib." read "Dum. et Bib."

„ 11, „ 10 „ below omit "(Vide Plate.)"

„ 14, „ 5 „ above for "26 *P. tentori*" read "26 *P. TENTORIA.*"

„ 14, „ 28 „ „ for "P. SMITH, *Gunther*" read "P. SMITHII, *Günther.*"

„ 17, „ 16 „ „ omit "A" after "3."

„ 18, „ 6 „ „ for "195 inches" read "194 inches."

„ 27, „ 14 „ „ for "Weigmann" read "Wiegmann."

„ 28, „ 6 „ „ transfer "," from *before* after the word "longitudinally."

„ 30, „ 34 „ „ "Gecko Harriettæ, Tytler, MSS." see Journal Asiatic Society, Bengal, 1865, Vol. XXXIII., p. 548.

„ 33, „ 13 „ „ for "Gray" read "Grey."

„ 59, „ 5 „ „ for "Merrem" read "Merrem."

„ 61, „ 6 „ „ for "Thaiel tmio" read "Thaiet-mio."

„ 66, „ 10 „ „ transfer "," from after before the word "scales."

„ 76, „ 29 „ „ for "Trig" read "Trig."

„ 76, „ 31 „ „ omit "," after "Tropidolæmus."

„ 80, „ 6 „ „ for "Weigm." read "Wiegm."

„ 81, „ 6 „ below; the name "*P. Frithii.*" ought to be printed in Roman capital letters, as it designates a newly named species, not, I presume, identical with the previous one.

„ 88, „ 9 from above for "PANGOHURA TECTURA" read "PANGSHURA TENTORIA."

„ 88, „ 19 „ „ for "candal" read "caudal."

ERRATA

(*In the Plates.*)

On the fourth plate omit "No. 27" after the name of the species "**Pangshura Smithii.*"

PREFATORY REMARKS.

The present Catalogue originated in this wise—

Having, at the commencement of the rains, to return to Calcutta on duty from Rangoon, where I had been paying some attention to the Reptiles of the country, I determined to seize the opportunity offered to me, of examining the types of those species described by Blyth from Birma and Tenasserim, and any other specimens in the Museum of the Asiatic Society of Bengal, which might enlarge my knowledge of the Reptiles of the Province.

Finding that Dr. Anderson, Curator of the Indian Museum, was engaged in a searching enquiry into the state of the collections, I offered to compile a Catalogue of the Reptiles in the Museum, and thereby, to some extent, lighten his labours. My offer being cordially acceded to by Dr. Anderson and the Council, the present work is the result, and I trust that it will not only clear up some erroneous identifications, but be the means of directing attention to the comparatively poor collection which the Museum possesses of Indian reptiles, when it should have a much finer one.

The list of desiderata is so very extensive, that I trust many large accessions may be looked for, when members of the Society and others, scattered throughout the length and breadth of this glorious land, only know what is required of them. With this view I urged that this Catalogue should be published as an extra number of the Journal, that by its circulation to members, the wants of the Museum might become more generally known.

In the preparation of this Catalogue, I have had the inestimable advantage of following 'Dr. Gunther's Reptiles of British India,' which I may be said to have taken as the basis of my own, though I have not slavishly followed it, when I thought an

alteration in arrangement or nomenclature desirable; as, for instance, in the case of the genus Eumeces, to which Gunther refers no less than sixteen species, but respecting which assemblage I have preferred adhering to the arrangement in Gray's Catalogue of lizards in the British museum, as at once an easier and more natural classification.

Then again, I have removed the important family of Homalopsidæ from their place next the Colubridæ, to their more natural location alongside of the Hydrophidæ. The Homalopsidæ may be thought to have relations with the Aquatic Colubridæ, but these can only be said to be aquatic in the sense of more particularly affecting the vicinity of water than other snakes, whether for food or delectation; but a fondness for water is not peculiar or restricted to them, as numberless other snakes, the true Colubri, the Cobras and Bungari, &c. equally delight in water and its vicinity.

Between the Hydrophidæ and Homalopsidæ on the other hand, the connexion is much stronger and, so to speak, more organic. The Homalopsidæ are true water snakes, rarely seen on land; and being viviparous, are, like the Hydrophidæ, not compelled to resort to the land for the deposition of eggs. Some of the species too, if not most of them, affect tidal waters, and are equally at home in salt and fresh water. The coloration too of some, such as Hipistes, is essentially that of the Hydrophidæ; and Hipistes, being moreover a marine as well as a river species, seems to form a natural link between the two families.

The curious genus Xenopeltis I have placed next to Python, for no better reason, perhaps, than that it is as much in place there as any where. The brilliant metallic lustre which both display during life, far surpasses what I have remarked in any other snakes.

Several new genera will be found described in the following pages, and some new species. Two species I have removed from Ablabes which Gunther includes, but my reasons are I think, sound. If such and such a character is of importance, and constantly used as a generic character, as the presence or

absence of keels, the number of rows of scales, the suppression of some of the normal plates of the head, &c. &c., how can we consistently ignore these characters in the case of some genus which we want to make the receptacle for forlorn unappropriated species? Some of the genera of Colubridæ are established on very shadowy characters, Herpetoreas for instance; yet in Ablabes, Gunther includes species, affording excellent characters for separation, and which in fact demand separation. Species are included in it with two, three or four frontals, smooth scales or keeled scales, and from 13 to 17 rows of scales. I by no means think, that it would not be a gain, where practicable, to enlarge the generic definition, so as judiciously to include closely allied forms merely excluded by some trivial character; such a process is, I think, wanted, but it requires caution to carry it out: but, taking the genera of serpents as they stand, and bearing in view the admitted weight of certain characters, why, I ask, and on what grounds, are we entitled to relax our principles of classification, and make a particular genus a receptacle wherein to impound aberrant species, like Ablabes, as it stands in Gunther's catalogue, or the still more miscellaneous throng constituting Eumeces?

This is, however, a mere difference of opinion, and I fully acknowledge, whilst adopting a slight modification of his arrangement, the temerity of dissenting from the verdict of so profound a savant as Dr. Gunther, on a matter of classification.

I have also separated the terrestrial herbivorous lizards as a distinct Family, (Uromasticidæ,) from the Agamidæ. Their habits, food, and aspect warrant this arrangement, and I cannot help thinking that Dr. Gunther has been misled as regards the arboreal habits of Leiolepis, which is, I believe, eminently and solely a terrestrial and burrowing lizard. Cantor appears to be the authority on which their reputed arboreal habits rest, but his words do not seem to convey necessarily that he was an eye-witness of their powers of flight, beyond evolutions performed under unnatural conditions and under confinement in a cage. Doubtless the mechansim of the expansile ribs suggested the idea of their

using them as Draco is known to do: at the same time, he appears to have been ignorant of their burrowing habits, and to have only noted them in captivity. His words are, "Twelve were *at one time* obtained from a spice plantation in province Wellesley;" and again, "the *Malay who brought the lizards* asserted they were frugivorous, and might be fed with soft fruit and boiled rice, which was perfectly true." These are not the words of an observer of the animal in a state of nature, and no allusion is made to their gregarious cuniculine mode of life.

It would be very interesting to determine, if, as I suspect may be the case, Moloch horridus from Australia belongs to the same family and exhibits the same traits; but I did not like to injure the Society's specimen by opening it, when a query will probably elicit fuller information from those able to obtain it from fresh specimens.

The family Geoemydidæ, I have established for those Emydinæ whose males have a concave sternum; a sexual adaptation to their terrestrial habits.

The following have been the most important contributors to the reptile collection, though its neglected state is an ungrateful return for the liberality of the donors. Contra spem meliora speramus! Dr. Kelaart, Ceylon; Major Berdmore, Pegu; Major W. S. Sherwill, Darjeeling; Rev. F. Fitzgerald, North Carolina; Dr. Jerdon, South India; W. Theobald, Esq., Jnr., Punjab and Pegu; E. Robinson, Esq., Assam; Lieut.-Cols. Phayre and Tytler, and others noted in the proper place.

I must not omit to record my obligation to H. H. Locke, Esq., for the great care he has bestowed on the Plates, which, it must be allowed, reflect considerable credit on his pupils to whom their execution was entrusted.

W. THEOBALD, Junior.

Calcutta, Sept. 1865.

CATALOGUE OF REPTILES

IN THE

Museum of the Asiatic Society of Bengal,

1866.

CLASS REPTILIA.

SECTION A.—CATAPHRACTA, SHIELDED REPTILES.

ORDER CHELONIA.

FAMILY TESTUDINIDÆ.

TESTUDO, Oppel.

1. T. Indica, Gmel.

   a. stuffed female. Galapagos Islands.

2. T. radiata, Shaw. Madagascar.

   a. stuffed male.
   b. stuffed female. (Some plates gone.)
   c. stuffed female. (Non adult.)

3. T. stellata, Schw.

   T. elegans, Schoepff.
   T. megalopus, Blyth.
   a. large stuffed female.
   b. shell of smaller female. Vizagapatam. Capt. Rolo.
   c. similar stuffed. Ditto. Ditto.
   d. small female stuffed.
   Nuchal plate invariably absent.

4. T. geometrica, L.

   a. stuffed female. (Some plates gone.) South Africa. Major Sherwill.
   b. ditto ditto Ditto. Ditto.
   c. shell of very young male. Ditto. Ditto.
   Very like the Indian T. stellata.
   Specimens *a* and *b* have no nuchal plate. *c* has it large and distinct.

5. T. PLATYNOTUS, Blyth. J. A. S., XXXII. p. 83.

a. b. c. upper shells of adults, purchased in the Rangoon Bazar, where they are used to bale oil.	Burma above the frontier.	E. Blyth, Esq.

6. T. ELONGATA, Blyth. J. A. S., XXII. p. 639.

a. stuffed male.	Arakan.	Major Phayre.
b. stuffed female.	Tenasserim.	
c. half grown female, shell only.		
d. half grown male, ditto. (a few plates gone.)	Tenasserim.	
e. upper shell only.		
f. g. very young in spirit.		
h. very young, (shell dried.)		

This is the common species of land tortoise in British Burma.

Blyth very causticly remarks J. A. S. XXXII, page 84. "Of course this is the species referred to as *T. elongata*, Gray (!) from Camboja, in Proc. Zool. Soc. 1861, page 139. As well, however, may Dr. J. E. Gray, refer to *Homo sapiens*, Gray, or *Equus Caballus*, Gray! I claim the honour, such as it is, of having named the three fine Indo-Chinese species of Testudo, as yet discovered. *Palmam qui meruit ferat.* Dr. Gray, is, however, a well known offender in this respect; more's the pity."

HOMOPUS, DUMERIL ET BIBRON.

7. H. HORSFIELDII, Gray.
H. Burnesii, Blyth.

a. stuffed female.	Afghanistan.	Sir A. Burnes.
b. young, in spirits (in poor condition.)		Ditto.

CHERSINA, GRAY.

8. C. ANGULATA, Dum et Bib.

a. b. adult males, shells only.	South Africa.	Major Sherwill.
c. half grown, ditto ditto.		Ditto.
d. e. young females, ditto.		Ditto.

FAMILY GEOEMYDIDÆ.

MANOURIA, GRAY.

M. EMYS, Gray.

a. adult, (much injured).	Moulmein.	Major Phayre.

Formerly there was a stuffed specimen; but now only a few *fragments* remain of this rare species.

GEOEMYDA, Gray.

9. G. GRANDIS, Gray.

Cyclemys platynota, Gray apud Blyth.

a. upper shell of adult.	Tenasserim.	W. Theobald, Junr., Esq.

10. G. TRICARINATA, Blyth.

Emys tricarinata, Blyth.

a. stuffed male.	Chaibassa.	Major Tickell.

CUORA, Gray.

11. C. AMBOINENSIS, Daud.

a. stuffed male.	Malacca.	Rev. J. Lindstedt.
b. ditto female.	Ditto.	Ditto.
c. ditto ditto half grown.	Tenasserim.	Dr. Helfer.

CYCLEMYS, Bell.

12. C. ORBICULATA, Bell.

Emys dentata, Gray.
C. Oldhami, Gunther.

a. adult shell, (female ?)	Arakan hills,	W. T. Blanford, Esq.
b. ditto ditto.	Tenasserim.	W. Theobald, Junr., Esq.
c. stuffed young.	Sitang river.	Major Phayre.
d. dry, young, stuffed.	Sitang river.	Major Berdmore.

The specimen figured by Gunther as *C. Oldhami* was obtained alive by myself near Mergui, and is merely the adult of *C. orbiculata*, Bell. The orbicular form of the shell, as well as the strongly toothed margins, characterise young and half grown shells, disappearing as the animal becomes full grown. Both Bell and Gunther describe the sternum without any cross joint, such as occurs in Cuora, but occasionally the bony transverse suture remains permanently unanchylosed, causing a false joint simulating the true cartilaginous joint of Cuora. In a specimen in my possession the motion is pretty free, though the suture is covered by the ends of the abdominal plates. In very young shells this transverse joint is imperceptible; in half grown individuals it is well distinguishable, and in adults it is not unfrequently conspicuously marked externally by a sort of carious fossa across the abdominal plates, resulting, no doubt, from the mobility of the bony suture beneath.

FAMILY EMYDIDÆ.

EMYS, Brongniart.

13. E. NUCHALIS, Blyth.

a. stuffed adult.	Java.	Batavian Society.
b. c. smaller, stuffed.	.....	Ditto ditto.

14. E. HAMILTONII, Gray.

a. stuffed adult.	Calcutta.	E. Blyth, Esq.
b. c. younger ditto.	Ditto.	Ditto.
d. upper shell only.	Ditto.	Ditto.

15. E. TRIJUGA, Schweigg.

E. Seba, Gray.

a. adult shell only.	Arakan hills.	W. T. Blanford, Esq.
b. ditto stuffed.	Madras.	Capt. Mitchell, Madras Musuem.
This individual has no nuchal plate.		
c. d. shells of young.	Ceylon.	Dr. Kelaart.

I quite agree with Dr. Gunther in referring *E. Seba*, Gray, to this species, which attains a greater size than is supposed. Mr. Blanford's specimen is evidently a very aged individual with the keels nearly obliterated, but with the anterior margins strongly revolute. Colour uniform blackish throughout, and pale yellowish brown where abraded.

16. E. NIGRA, Blyth. J. A. S., XXIV., p. 713.

E. crassicollis, Bell apud Blyth.

a. shell of adult.	Tenasserim river.	W. Theobald, Junr., Esq.
b. ditto young.	Ditto.	Ditto.

This species was, I think, correctly separated as a distinct species in the first instance, by Blyth, though subsequently referred by him to *E. crassicollis*. The vertebral plates are very differently shaped from those of *crassicollis*, being mushroom-shaped, and so attenuated behind as almost to admit the approximation of the costals. This peculiarity of form is less seen in the young than in the adult, and from not being particularly dwelt on by so minute a describer as Dr. Gunther, I am the more inclined to regard *E. nigra* as distinct from *E. crassicollis*. It may, however, be the nearly allied species alluded to as inhabiting Camboja. In the adult shell, the last vertebral is hardly broader than the caudals. *(Vide Plate.)*

17 E. GUTTATA, Schweigg. North Carolina. Rev. F. Fitzgerald.

TETRAONYX, LESSON.

18. T. LESSONII, Dum. et Bib.

a. stuffed adult, 23 inches.	Calcutta.	E. Blyth, Esq.
b. shell ditto.	Salween R.	W. Theobald, Junr., Esq.
c. d. half grown, stuffed.	Calcutta.	E. Blyth, Esq.
e. f. g. young ditto.	Ditto.	Ditto.
h. i. very young ditto.	Ditto.	Ditto.

This species is very common at Calcutta, and also about Rangoon. It is herbivorous in a great measure, and is much used in Calcutta in the manufacture of soup, which purpose no doubt it answers admirably; and I hope the admirers of Calcutta turtle soup will lose none of their relish for the article, by knowing how largely river turtle are substituted for the true *Chelonia virgata*, which, however, is occasionally brought to Calcutta from the Straits.

BATAGUR, Gray.

19. B. LINEATUS, Gray.

a. stuffed adult, 24 inches.

No locality or donor is given for the sole specimen in the museum, but Gunther records the species from Moulmein, Nepal, and Saharunpur, whence it had been procured by Dr. Falconer.*

20. B. THURGII, Gray.
Emys Thurgii, Gray.

a. stuffed adult, 21 inches.	Calcutta.	E. Blyth, Esq.
b. c. smaller, stuffed.	Ditto.	
d. e. half grown, ditto.	Ditto.	
f. g. h. i. j. young ditto.	Ditto.	

A very common species at Calcutta, though adults are not easily got. It appears to me more nearly affined to Batagur than to Emys.

21. B. DHONGOKA, Gray.
E. Duvaucellii, Dum. et Bib.

a. stuffed young.	Narbudda R.	
b. ditto smaller.	Sagur, Central India.	Lieutenant Roberts.

This species grows to a large size, but there are no adult specimens in the museum. It is common at Monghyr.

22. B. BERDMOREII, Blyth, J. A. S., XXXII., p. 84.
E. ocellata, D. et B. apud Gunther.
E. ocellata, D. et B. apud Blyth, J. A. S., XXII., p. 645.

a. b. stuffed adults.	Pegu.	Major Berdmore.
c. d. e. f. young, stuffed.	Ditto.	Ditto.

This species is very abundant in Pegu and Tenasserim. Its habits are strictly aquatic, not terrestrial as Gunther surmises, but it is often left dry by the drying up in the hot weather of the inundated plains, in which situations incredible numbers are captured by the Burmese, who fire the grass for the purpose. It is never found in the dry forests. Dr. Gunther remarks that Dumeril and Bibron's figure, Plate 15, Fig. 1, is "*not good*," but it refers to an *entirely different species*, which may account for its but indifferently representing the present!

* No maps which Dr. Gunther had consulted giving him any light on the subject, he amusingly enquires touching Saharunpur, "Is it another name for Serampur on the Hooghly?"

23. B. OCELLATA, Dum. et Bib.
not B. ocellata apud Gunther.
B. Berdmoreii, Blyth apud Gunther.

a. stuffed adult.	Calcutta.	E. Blyth, Esq.
b. c. smaller, stuffed.	Ditto.	Ditto.

This species occurs in Calcutta, but not in Pegu, where *B. Berdmoreii*, Blyth, replaces it. It is a much smaller and more elongate species than *B. Berdmoreii*, Blyth, which is very convex.

24.* B. TRIVITTATA, Dum. et Bib.

A specimen of this remarkably handsome species presented by myself from Moulmein, is no longer in the museum. It abounds in Pegu, and is remarkable for the disparity of coloration and size in the sexes.

" Male 18.50 × 13.10.

Shell pale olive green, with three conspicuous black streaks down the back, as though of black paint. Beneath, pale orange yellow. Soft parts of body and limbs pale yellow, dusky above. Neck and head smooth, during life of a bright carnation red, instantly fading on death to a waxy white. An intensely black lozenge-shaped plate behind the nostrils, on the forehead.

Female, 23.50 × 12.50.

Colour of the shell is dark brown above and below. Head, neck and limbs are uniform pale greenish olive, with the black lozenge behind the nostrils on the forehead, as in the male. Abundant in the Delta of Pegu. Oviposits about Zalon in December and January. Eggs 25 in number 2.6 long." Weight 965 grains. (MSS. Cat. Reptiles Pegu.)

PANGSHURA, GRAY.

(Fourth Vertebral decanter-shaped.)

25. P. TECTUM, Bell.
E. tecta, Gray.

a. stuffed adult, 7 inches.	Calcutta.	E. Blyth, Esq.
b. c. d. young, stuffed.	Ditto.	Ditto.
e.—m. young in spirits.	Ditto.	Ditto.

It is not a little singular that Dr. Gunther, in his last admirable work on the Reptiles of India, should have so superciliously, one might almost say perversely, ignored the labours of his predecessors. An excellent figure is given by Bell, and the species is also figured by Hardwicke. I do not agree with Prof. Bell that Hardwicke's figure is too brightly coloured, as the animal is often of a bright red below mottled with black, and with a bright red vertebral stripe. The more modest coloration, however, of Bell's figure should have prevented Dr. Gunther from describing the colour as yellow, in opposition to

* Species with an asterisk are wanting in the Museum.

those who had observed from life. A more trivial error is that of adopting Gray's name *tecta* for Bell's tectum. Dr. Gray's *mistake* in this matter of names would almost seem to be his *method*, to judge from this and other instances (vide ante under Testudo elongata, B.)

26. P. TENTORI, Gray.

a. stuffed adult.	Indus R.	Sir A. Burnes.
b. adult shell only, 8.25 inches. (sternum injured.)	Ditto.	Ditto.

From these specimens, it seems the vertebrals are rectangular in the adult, the first being, however, broadly pentangular with an obtuse angle in front. The young specimen, recorded as having been procured by Mr. Blyth from the vicinity of Calcutta, is no longer in the museum. Respecting the occurrence of this species near Calcutta, Dr. Gunther remarks, "*This we doubt, as the species may easily be confounded with young specimens of the Batagur and of the species allied to it.*" Dr. Gunther is probably right as to the non-occurrence at Calcutta of this species, but he may probably be mistaken, when saying it can be confounded with the Batagur.

It remains to determine what was the species alluded to by Mr. Blyth. As the specimen is lost (in common with so many others!), it is not easy to say with certainty what the species was, the only thing quite certain being that it was *not* the Batagur, as suggested by Gunther. I am inclined to think it may have been a young *P. flaviventer*, Gunther, which I believe occurs near Calcutta, though no example is in the museum.

* P. FLAVIVENTER, Gunther. Lower Bengal.
* P. SMITH, Gunther. .....

PLATYSTERNUM, GRAY.

27. P. MEGACEPHALUM, Gray.

a. stuffed young (bad state.)	Martaban.	Major Berdmore.

CHELYDRA, SCHWEIGGER.

28. C. SERPENTINA, L.

a. shell only.	North Carolina.	Rev. J. Fitzgerald.

KINOSTERNUM SPIX.

29. K. ODORATUM, Daud.

a. *b*. *c*. young, in spirits (bad state.)	North Carolina.	Rev. J. Fitzgerald.

FAMILY TRIONYCIDÆ.

EMYDA, Gray.

30. E. granosa, Schoepff.

a. b. stuffed adults.	Calcutta.	E. Blyth, Esq.
c. young stuffed.	Ditto.	Ditto.
d. young in spirits.	Ditto.	Ditto.

31. E. Ceylonensis, Gray.

a. head in spirits.	Ceylon.	Dr. Kelaart.

TRIONYX, Geoffroy.

32. T. Gangeticus, Cuv.

a. shell of adult.	Bhagulpur.	W. Theobald. Junior, Esq.
Finely granular, length 17 inches.		
b. stuffed adult.	Calcutta.	E. Blyth, Esq.
c. ditto, semi adult.		
d. e. young stuffed.		
f. g. very young ditto.		
h. five young, in spirit.		

32*a*. T. Guntherii, Gray. Arakan.

CHITRA, Gray.

33. C. Indica, Gray.

a. young stuffed. Hooghly.
bony shield 7 inches.

FAMILY CHELONIDÆ.

SPHARGIS, Merrem.

34. S. coriacea, L.

a. stuffed female, 75 inches. Tenasserim coast. Lt. Col. Tickell.
For account of capture *vide* J. A. S., XXXI., page 367.

CARETTA, Merrem.

35. C. imbricata, Schweigg. Bay of Bengal.
Affords the tortoise shell of commerce.
a. b. c. d. stuffed.
e. young ditto.

CAOUANA, Gray.

(*Costal plates ten.*)

36. C. olivacea, Eschs. Bay of Bengal.
"*The logger head.*"
a. stuffed, 26.5 inches.
This specimen has three additional costals, or thirteen in all.

b. shell of adult. Has one additional costal.
c. young stuffed, strongly keeled.

This is the common turtle along the east coast of the Bay. Few Europeans have any idea but that it is the true edible turtle, and in their innocence glory in soup made from it. It is carnivorous, and its flesh so indifferent that even the Burmese do not greatly care for it. The flesh of Sphargis, according to Tickell, is equally coarse.

CHELONIA, Fleming.

(*Costal plates eight.*)

37. C. virgata, Schweigg. Bay of Bengal.
a. stuffed, 50.5 inches.
b. semi-adult ditto.
c. young ditto.
d. upper shell only.

This is the true edible turtle. It is herbivorous, and may be distinguished from the logger-head by having only thirteen plates on the back, whilst the logger-head has fifteen, or one pair more of costals. Calcutta specimens are mostly brought from the straits.

ORDER, EMYDOSAURI.

FAMILY CROCODILIDÆ.

CROCODILUS, Cuvier.

(*a, Nuchal shields, small.*)

1. C. porosus, Schneid.
C. biporcatus, Cuv.
a. stuffed adult. Head, 16.5. Body, 43.8
Tail, 63.0 = 123.3 inches. Forehead, 4.4 broad.
Cervical scutes, 5.7 across. Two small nuchal shields.
b. smaller stuffed.
b. b. smaller ditto. Four small nuchal shields.
Head, 7.5. Body, 16.6. Tail, 25.2. = 49.3.
c. young stuffed. Malacca. Mr. Foster.
d. young in spirit. Penang.
e. ditto ditto.
f. skull of adult, 23 inches.
g. ditto young, 14 inches, (injured.)
Dorsal scutes in eight rows.

This species which abounds in Burmah, appears to be less common in Bengal than C. palustris.

(*b, Nuchal shields, large.*)

2. C. TRIGONOPS, Gray.

C. palustris, Less. apud Gunther.
C. bombifrons, Gray apud Blyth.

a. half grown animal, stuffed.
Head, 10.0. Body, 28.4. Tail 38.4 = 76.8.
Central nuchal shields smaller than the others, and a little advanced.
Forehead, 3 inches. Cervical scutes 5 inches across.
Dorsal scutes in six rows.

b. skull of half grown animal, 12.5 inches. Western India. .....

c. skull smaller, 9.5 inches. ....

3. A. C. VULGARIS, Cuv.

stuffed. Nile. D. C. Money, Esq.
Head, 17.40. Body, 45.00. Tail, 55.60 = 118.00 Inches.
Forehead, 3.50. Across cervical scutes, 7.25.

Outer cervical scutes smaller than the others, and placed a little forward. This species differs from the closely allied C. palustris in the narrower shape of the head, and in having eight rows of dorsal scutes towards the lumbar region; at least this specimen has. I infer that this is the specimen shot and presented by D. C. Money, Esq. (J. A. S., XVI., p. 385,) but except the small specimens in the cases, and an erroneous label on the skull of C. trigonops (labelled C. bombifrons by Mr. Blyth), not a stuffed skin or skull in the museum has so much as a trace of any note of its history, locality or donor, which information former Curators must have supposed visitors and students capable of supplying from the depths of their own moral consciousness! In fact, disorder, dilapidation and neglect have for years struggled for mastery over the Society's collections, with what result may be well imagined.

3. C. PALUSTRIS, Less.
C. bombifrons, Gray.
Not C. bombifrons, Gray apud Blyth, see ante No. 2.
C. bombifrons, Gray apud Huxley, Proc. Lin. Soc., 1859.
C. bombifrons, Gray apud Gunther.
C. trigonops, Gray apud Gunther, vide No. 2.

a. stuffed adult.
Dorsal scutes, in six rows strongly keeled. Head, 16.50. Body, 45.50. Tail, 61.20 = 123.20. Forehead, 4.4, cervical scutes, 8 inches across.

c. young stuffed.		
e. ditto ditto.	Java.	Batavian Society.
f. g. ditto, in spirit.		
h. skeleton of adult female. Head, 26; Body, 72; Tail 96 = 195 inches	Mutlah.	A. Sturmer and H. B. Farr, Esq.
j. skull of very young animal. 4 inches, premaxillary suture very direct, may belong to trigonops (?).	Ceylon.	Dr. Kelaart.
l. very large skull, 29 inches.	.....	.....
m. n. o. oo. skulls of adults.	.....	.....
on. no. skulls of half grown animals, (imperfect.)	.....	.....

The synonymy of our Indian crocodiles is very confused, but the specimens in the Museum of the Asiatic Society clearly illustrate the three species found in the country.

Firstly, of *Crocodilus porosus*, there are 4 stuffed specimens, 2 in spirit and two skulls. From this poverty of specimens, I should argue that this species is not common in Lower Bengal. It, however, abounds in Pegu and is "*the crocodile*" of that Province. It is a well marked species, which cannot be well confounded with either of the others.

Secondly, of *Crocodilus trigonops*, the Society possesses one stuffed specimen (as I believe it to be) and two skulls, one skull from Western India, the other spolia without record. Of this species I also possess a skull of an animal shot by myself in the Nerbudda, of which most unfortunately I have no notes.

From Mr. Gray's description of its triagonal shape, I refer these skulls to his *trigonops*, as they are very nearly two-thirds as broad across the condyles, (measured straight) as long: my specimen measuring from back of head to insertion of 1st tooth 19.10, across condyles 12.25. Besides its trigonal shape, a distinctive mark of this species is the premaxillary suture which runs straight across the palate from notch to notch. The region of the external nares is very tumid, with a deeply sunken interspace behind it, giving a very pugnose physiognomy to the animal, very much more so than in *C. palustris*. In front of the orbits, a semicircular fossa marks the suture of the facial bones, contrasting by its smoothness with the pitted surface of the face. The style of pitting differs moreover from skull of *C. palustris* in being more regular, the pits more circular than *elongata*, and not given to anastomosing so much as in *C. palustris*. It is an extremely well marked species, but is not alluded to by Prof. Huxley in his instructive paper on these saurians in Proc. Lin. Soc., February, 1859, from the fact, as I presume, of the British Museum containing only two young stuffed specimens, which would not afford proper data for remark. It would seem to be a small species: my specimen, which seemed nearly adult, was not more than eight feet, if I recollect rightly. It was shot too under peculiar circumstances. Dropping down the Nerbudda in a canoe, I saw what I took for a stone lying in a hole in the steep bank of the river. The hole not being more than 2

feet across, I never believed it contained a crocodile, as my boatmen assured me was the case. However I fired and a lashing of water was heard in the hole. What I aimed at was still visible, so I fired again, seemingly without effect, but on going up, I hauled out a dead crocodile with two balls through the brain. This was *C. trigonops*, and I am not aware that animals of the larger species excavate holes for themselves, as this one does. It may very likely be the "*small crocodile*" said to inhabit streams on the table land of Rhotas Ghur.

Thirdly, of *Crocodilus palustris*, Lesson, the Museum possesses a splendid suite of specimens; 3 stuffed specimens, 4 in spirit, a fine skeleton and 8 skulls. It is emphatically "*the crocodile*" of Lower Bengal. I have procured one specimen at Thaiet-mio, but it is rare in Lower Pegu. I see no reason for doubting the conclusion of Prof. Huxley that *C. bombifrons*, Gray, is a synonym of this species, one of the types having been received from the Asiatic Society's Museum, which is rich in *C. palustris*, and the trivial name bombifrons is very applicable, especially to the adult animal. Some few heads are rather narrower than others, probably females, but cannot well be confounded with *C. porosus*, even were no other parts than the skulls preserved. If I am correct in referring the above specimens to *C. trigonops*, it is utterly past my comprehension how Gunther has referred *C. trigonops* as a synonym of *C. palustris*. *C. porosus* is nearer *C. palustris* than *C. trigonops* to either. I am not quite clear, however, if the stuffed specimen 2*a* belongs to the species. The præmaxillary suture appears to be straight, but still I am not certain of my reference.

I subjoin some measurement of a series of skulls.

A. C. porosus (1*f* of Catalogue,) of same breadth nearly across the condyles as B.
B. C. trigonops from Nerbudda, R. Central India.
C. C. palustris of the same breadth, across condyles as B.
D. C. palustris, Irawadi. Thaiet-mio, 12 feet, (in my possession).
E. Ditto ditto, (3*h*.) Bengal, 18 „
F. Ditto, largest skull, (3*l*.) Bengal.

	C. porosus.	C. trigonops.	C. palustris.			
	A.	B.	C.	D.	E.	F.
Nape to opposite 2nd notch,	11.50	11.00	11.75	12.40	14.10	14.75
Nape to fore margin of nasal hole,	20.75	16.30	20.00	21.60	22.50	25 75
Nape to alveolus of 1st tooth,	23.25	19.10	22.50	24.60	26.20	26.00
Breadth across condyles,	12.75	12.25	12.25	13.25	16.30	18.00
From 1st notch to 1st notch along the alveoli,	11.75	9.95	11.50	11.75	13.50	16.00
Breadth at 3rd tooth, round the curvature,	8.25	7.10	8.50	9.10	11.25	12 30
Ditto 9 tooth,	10.50	10.30	10.75	11.60	14.30	16 25
Ditto 36 tooth,	12.50	13.25	13.75	14.25	16.25	17.60

FAMILY GHARIALIDÆ.

GHARIALIS, GEOFFROY.

4. G. GANGETICA, Geoffr.

a. adult stuffed.	.....	.....
b. c. young ditto.	.....	.....
d. skin of adult in a bad state.	.....	.....
e. f. very young, in spirit.	.....	.....
g. h. young stuffed.	.....	.....
i. skull of adult, 29.75 inches.	.....	.....
j. skull of adult, 29.50 ditto.	.....	.....
k. l. skulls of young animals, in bad state.	.....	.....

I concur with Col. Cautley's remarks in As. Res. XIX, page 32, on the folly of perpetuating a misnomer. "The present mode of writing this word "*Gavial*" appears to have originated in a mis-reading of the manuscript of some naturalist, the *r* and *v* being very similar in form. As "*Ghariál*" is the correct native name, there seems no reason for perpetuating the misnomer."

SECT. B. SQUAMATA. SCALED REPTILES.

ORDER SAURIA.

FAMILY VARANIDÆ.

PSAMMOSAURUS, FITZINGER.

5. P. SCINCUS, Merr.

a. adult stuffed, body 14 tail 18 = 32 in.	Nubia.	Dr. Ruppel.
b. young, in spirit.	Salt Range.	W. Theobald, Junr.

VARANUS, MERREM.

6. V. FLAVESCENS, Gray.

a. b. adults stuffed. Body 16.00, tail 19 = 35.	Lower Bengal.	.....
c. half grown ditto.	.....	.....
d. ditto ditto.	.....	A. C. Carlyle, Esq.
e. ditto yellow spotted.		.....
f. ditto, in spirit.		.....

7. V. DRACÆNA, L.

a. adult stuffed. Body 10, tail 13 = 23 in.	Lower Bengal.	.....
b. ditto.	Mirzapur.	Major Wroughton.
c. d. young stuffed.	Allahabad and Agra.	Dr. Stewart.
f. adult in spirit.	.....	Major Wroughton.
g. half grown ditto.	.....	.....
h. many half grown and young.	.....	.....

8. V. NEBULOSUS, Dum. et Bib.

a. adult stuffed. Body 23, tail 31 = 54 in.	.....	.....
b. c. two-thirds grown.	.....	.....
d. adult, in spirit.	.....	.....

HYDROSAURUS, WAGLER.

9. H. SALVATOR, Laur.

H. giganteus, Gray?

a. adult stuffed. Body 32.5, tail 48.5 = 81 inches. Very large specimen from probably Lower Bengal.		
b. adult. Body 24, tail 35 = 59 inches. Forwarded as a new species.	Andamans.	Lieut.-Col. Tytler. .....
c. d. half grown stuffed.		
e. young stuffed.	Malacca.	Rev. W. E. Linstedt.
f. young in spirit.	Rungpur.	.....
g. half grown in spirit.	.....	.....
h. adult, ditto.	.....	.....

10 H. VARIUS, Shaw.

a. adult stuffed. Body 23, tail 35 = 58 in.	Australia.	Melbourne Institute.

11. H. OCELLARIUS, Blyth.

a. stuffed specimen. Body 14.5, tail 19.5 = 34 inches. In bad state.	Australia.	Dr. J. MacClelland.

FAMILY LACERTIDÆ.

TACHYDROMUS, Daudin.

12. T. sexlineatus, Daud.

a. b. two specimens in spirit. Pegu. A. Grote, Esq.
Martaban. Major Berdmore.

The specimen, formerly presented by myself from Mergui, is no longer in the Museum, (J. A. S. XXIV., 715.)

TROPIDOSAURA, Boie.

13. T. Jerdoni, Blyth.

Ophiops Jerdoni, Blyth, (J. A. S., XXII., p. 653.)
a. type specimen in spirit. Mhow. Dr. Jerdon.

Mr. Blyth's description is so meagre and inaccurate that I here give my own. It will be seen that this interesting lizard is not an Ophiops, but belongs rather to Tropidosaura of which one species is known from Java. Nostrils in the ridge of the face, lateral or subsuperior, perforated in a moderate nasal, followed by two small postnasals, one above the other, both together hardly equalling the nasal. Loreals two, the second very large, and separated by some small scales from the eye. Seven upper labials, four first large; fifth largest, under the orbit, sixth and seventh small. Lower labials seven, small band-like. Lower rostral large, and four pairs of very large chin shields. Scales of back lanceolate, acutely keeled; in twenty-four rows; (keeled in 22.) Scales of belly smooth, broadly hexagonal, in six rows. The supra abdominal row of scales smooth, larger than those above them. Toes 5—5 long, slender, curved, unequal, serrated above and below. Sides roughened with keeled scales. Scales in front of limbs large, behind smaller, all sharply keeled. Tympanum distinct, eyelids none. Eyebrows keeled. Superciliaries large, divided in two. Vertical and occipitals normal. Post occipitals squarely truncate behind. Nasals contiguous. Supernasal and frontals about equal to each other. All the head shields longitudinally plicated. Ear surrounded with granular scales. Femoral pores twenty, interrupted on the pubes, 10 in each thigh in a gently curved line. Pores pierced in the posterior angle of the scales. One very large quadrangular præanal. Tail surrounded by equal verticiliate keeled scales.

The present colour of the specimen is brownish (bronze, Blyth) with four ill-defined rows of dark spots down the back. A well defined pale streak separating the outer rows. A pale median streak also indicated.

FAMILY ZONURIDÆ.

PSEUDOPUS, Merrem.

14. P. gracilis, Gray.

Ophiseps tessalatus, Blyth,
J. A. S., XXII., p. 655. Rangoon. Purchased.
a. b. Type specimens, in spirit.

FAMILY GYMNOPHTHALMIDÆ.

ABLEPHARUS, Cocteau.

15. A. Pannonicus, Licht.

a. in spirit.	Eastern Europe.	Hungarian Museum.

FAMILY SCINCIDÆ.

a. scales keeled.

TROPIDOPHORUS, Dume'ril et Bibron.

16. T. Berdmoreii, Blyth.
Aspris Berdmoreii, Blyth,
J. A. S., XXII., p. 650.

a. b. c. specimens in spirit.	Mergui.	Major Berdmore.

CYCLODUS, Wagler.

17. C. Gigas, Bodd.

a. b. c. stuffed adults.	Van Dieman's land.	Purchased.
d. half grown ditto.	Ditto.	Ditto.

TRACHYDOSAURUS, Gray.

18. T. rugosa, Gray.

a. b. stuffed adults. Labelled, *Egenia.*	Western Australia.	Purchased.

TILIQUA, Gray.

19. T. rufescens, Shaw.
Scincus multifasciatus, Kuhl apud Gunther.
T. trivittata, apud Gunther.

a. very large specimen in spirit, 18 inches. Keels very faint.	Andamans.	Lieut.-Colonel Tytler.
Scincus Tytlerii, Tytler MSS.		
b. many specimens in spirit.		.....
c. nearly adult ditto.	India.	Dr. Jerdon.

The coloration of this very common lizard is somewhat variable. During life, the colour of the back is some shade of rich olive brown or bronze with the sides darker, and a pale stripe running from over the eye down each side of the back, which is more or less black dotted. Beneath greyish or yellowish. Sides *seasonally* deeply suffused with red. Unfortunately the specimens in the Museum, which *should* possess an unrivalled series of this species, are nearly all jumbled into one bottle with no record of either donors or localities, so that it is impossible to discriminate local varieties.

The red spotted variety, which Gunther records as found on the east side of the Bay of Bengal is, I imagine, a merely seasonal garb. Cantor describes

this species as laying 6 to 12 eggs. This I believe to be a mistake, as I have taken perfectly formed embryos from it, and believe it to be, therefore, viviparous. Cantor, however, unites as a synonym of this species *T. multicarinata*, Kuhl, which species is oviparous. It is a smaller species and evidently "the young with 5 to 7 keels" of Cantor's description in J. A. S., XVI. p. 652.

20. T. MONTICOLA, Gunth.

a. three specimens in spirit. ....

The scales are four keeled, but, though Gunther only describes two keels, I think it must be this species. No label is attached, and the specimens exhibit no markings, being a uniform plumbous brown above, pale below.

T. monticola is from Sikkim, and probably replaces *T. rufescens* of the plains.

21. T. TRIVITTATA, Gray.
T. rufescens, Shaw apud Gunther.

a. mutilated specimen. Jalnat. Dr. Jerdon.

A handsome species, with three broad white bands down the back; scales five keeled.

22. T. QUINQUETÆNIATUS, Licht.

a. in bad state. Egypt. C. J. Evans, Esq.

23. T. MULTICARINATA, Kuhl.
Euprepes macularius, Blyth.
T. rufescens, Shaw apud Gunther.

a. four specimens. Rungpore (?) .....

These specimens have no label, but are, I think, the same as a species I have always considered as *T. multicarinata*, Kuhl, from Birma. My Birmese specimens are a little larger than the Museum ones, and in a better state also. A female contained 3 eggs and measured, body 3.2, tail 4.2 = 7.4. Colour (olive) pale bronze above, black spotted, spots long and streaky. A broad black lateral band, white margined above. Underneath white. Scales distinctly 7 carinate. Jerdon (J. A. S., XXII., 479) mentions a small specimen in the museum, of *T. multicarinata*, Kuhl, but whether or no he refers to one of the above specimens I know not. Like so many other specimens it has probably evaporated long ago. *T. multicarinata* differs from *T. rufescens* most essentially in being oviparous, (vide *T. rufescens*).

*T. OLIVACEUS, Gray. Malayan Peninsula.

EUPREPIS, WAGLER.

*E. TRILINEATA, Gray. Carnatic.

MABOUIA, FITZINGER.

24. M. QUADRILINEATA, Blyth, J. A. S., XXII., 652.
† *(Labelled, Plestiodon quinquelineatum, L.*
North Carolina. Rev. F. Fitzgerald.)

a. fine specimen. Hong Kong. J. C. Bowring, Esq.

† The labels of specimens are all in Mr. Blyth's handwriting.

The two dorsal white lines pass through the second row of scales and are nearly half a scale broad, and very conspicuous. The lateral pale lines are almost obsolete. The scales are smooth, but five or more fine hair-like lines are visible on them, ending in dark punctate dots on the hinder margin. The sub-caudals are broad, one-rowed, and have twelve white fine lines. These lines are not probably visible in the living animal.

25. M. CHINENSIS, Gray.
Plestiodon quinquelineatum, L. apud Blyth's MSS. label.
a. two young specimens. China. J. C. Bowring, Esq.
b. scales smooth.

HINULIA, GRAY.

26. H. MACULATA, Blyth.
Lissonota maculata, Blyth, J. A. S., XXII., 653.
Lissonota Harriettæ, Tytler MSS.
Lissonota Tytlerii, Tytler MSS.

The type specimen of Mr. Blyth's description is no longer in the museum. Eheu fugaces!

a. many specimens.	Martaban.	Major Berdmore.
b. two specimens.	Andamans.	Lieut.-Col. Tytler.

Limbs rather small. Thumb short; fourth finger very long. Nostrils lateral, in the centre of a somewhat oblique rhomboidal nasal shield. Supranasals none. Frontinasal large, broader than long, forming a suture in front with the rostral, which is truncated behind, but reaches well back on the surface of the head. Behind, it forms a suture with the vertical and the two frontiparietals. Superciliaries four, sub-equal, very convex, tumid, nearly approximating on the crown.

The Martaban specimens do not quite correspond with the type as to coloration. Above, rich pale bronze brown, irregularly dark spotted. Sides blackish, white dotted. The dark colour commencing as a narrow band across the upper rostral, gradually widening on the sides and continued to the extremity of the tail. On the tail, however, though distinct, it is rather pale, and bounded above and below with a waved or scalloped margin, very characteristic. Beneath, uniform white or greenish white. It abounds throughout Pegu and is an extremely active species inhabiting the forests.

*H. TAPROBANENSIS, Kelaart. Ceylon.
*H. Dussumieri, Gray. Malabar.

PLESTIODON, DUMÉRIL ET BIBRON.

27. P. SCUTATUS, n. s.

Body elongate, stout, subcylindrical. Tail elongate, cylindrical. Limbs small, stout. Toes moderate, regular, scarcely subequal, with long nails. Head conical and rather shelving. Nostrils large, central, in a single nasal plate. Supernasals one pair, forming a suture. Præfrontal separated from vertical by the broad suture of a largish pair of frontals. Vertical large, 5-sided, truncated before, pointed behind. Loreals 3, third largest. Superciliaries 7. Rostral large. Upper labials, regular 8; 6th under orbit: 6th, 7th,

8th largish. Lower eyelid scaled, with a transverse row of large plates. Ears largish, patulous, rhombic, with two projecting scales in front. Tympanum sunken. Lower rostral followed by two transverse gular scales, and 3 pairs of chin shields. Scales of body moderate, subequal, smooth. Back covered with a single row of transverse scales, from a little behind the shoulder to the loins. At base of tail two rows, soon followed by a single row of subcaudal scales. Præanal scales two, large. Two central rows of ventral scales, appreciably larger. Scales in 23 rows round the body.

Colour pale brown (in spirits). A dark band from snout to loins, down the centre of the back and along either side. Lateral stripes white dotted; the central one narrower than the row of vertebral scales. Tail mottled, dark markings somewhat annularly disposed.

Body 4.0, tail 5.75 = 9.75.
Elbow to toe 0.50. Knee to toe 0.70.
a. two adults in spirits.
No record of habitat or donor.

28. P. LATICEPS, D. et B.

a. adult in spirit.	North Carolina.	Rev. J. Fitzgerald.

MOCOA, GRAY.

29. M. FORMOSA, Blyth, J. A. S., XXII., 651.

M. pulcher, Blyth, museum label.

a. one large specimen, type of Blyth's description.	Mirzapore.	Major Wroughton.
b. *c*. smaller.	Wuzeerabad.	L.C.Stewart, Esq.

Dr. Gunther is quite correct in surmising that this species has a transparent lower eyelid and no supranasal, and it is, therefore, correctly referred to Mocoa.

30. M. SIKIMENSIS, Blyth.

Eumeces Indicus, Gray, apud Gunther in part.

a. five specimens.	Sikim.	Major Sherwill, W. Theobald, Junior, Esq.

Dr. Gunther appears to have confounded two species under this name, as of many authentic Himalayan specimens none exceed four and a half inches, though Dr. Gunther gives the length as 8 to 10 inches, probably from his China specimens erroneously identified. The limbs of the species are much smaller than *E. Indicus*, Gray, apud Gunther. The fore limbs barely reach beyond the gape, the hind a little more than halfway to the axilla. Nothing but Dr. Gunther's perverse determination to depreciate or ignore the labours of naturalists in India, could have led him into uniting such dissimilar species as this and *E. Indicus*. The size of this species, and the transparent lower eyelid of *Mocoa* were adequate warnings against such an error.

31. M. BILINEATA, Gray.

a. b. adults.	Nilghiris.	Dr. Jerdon, W Theobald, Junior, Esq.

The vent is shielded by two pairs of large preanals, and not as described by Gunther,"—a pair." The two centre shields are peculiarly claw-shaped, pointed and incurved at the apex, towards each other.

* M. Himalayana, Gthr.	Kashmir, Simla.
* M. Schlegelii, Gthr.	Sikim.

RISTELLA, GRAY.

* R. RURKI, Gray.	North India.

This species is not mentioned by Gunther, but is included in Brit. Mus. Cat., Lizards, p. 85.

PODOPHIS, WEIGMANN.

*P. CHALCIDES, L.	Pinang.

RIOPA, GRAY.

32. R. ALBOPUNCTATA, Gray.

a. many specimens.	Lower Bengal.	E. Blyth, Esq.

This bottle, though labelled "Lower Bengal," no doubt contains the specimens forwarded from all parts of India by various donors.

33. R. HARDWICKII, Gray.

a. two adults in spirit.	South India	Dr. Jerdon
	Ceylon.	Dr. Kelaart.
b. young (?)	Subathoo.	Rev. J. CaveBrown.

* R. punctata, Gray.	Malabar, Madras. Dakhan.

HAGRIA, GRAY.

* H. VOSMAERII, Gray.	Bengal.

CHIAMELA, Gray.

* C. LINEATA, Gray. India.

FAMILY ACONTIADIDÆ.

ACONTIAS, Cuvier.

* A. Layardii, Kelaart. Colombo.
Light olive longitudinally, spotted with brown.

NESSIA, Gray.

* N. Burtonii, Gray. Ambegammoa, Kaduganava, Ceylon.
Tympanum hidden, limbs 4, toes 3—3.

*N. Monodactyla, Bell. India.
Opening of ear minute but distinct, limbs 4, toes none.

FAMILY SEPSIDÆ.

SPENOCEPHALUS, Blyth.

34. S. tridactylus, Blyth.
a. 7 specimens in spirit. Afghanistan. Dr. A. Webb.

FAMILY GECKOTIDÆ.

GECKO, Gray.

35. G. verus, Merr.

a. 3 adults and 4 young in spirit.
b. adult and half grown. Andamans. Lieut.-Col. Tytler
c. two fine adults ditto. Dacca. Mr. Frith.

This is about the most westerly limit of the species, which abounds all along the east coast of the Bay of Bengal. It has been captured near Calcutta, but, probably, the specimens were introduced from ships from the east coast or were the descendants of parents so introduced, as so noisy a reptile could not be indigenous to Lower Bengal without being well known.

d. several specimens. Assam, Tenasserim. India House Museum.
e. stuffed specimen, (bad state.)

36. G. STENTOR, Cantor.
G. Verreauxi, Tytler. ....
a. 2 adult specimens in spirit. Andamans. Lieut.-Col. Tytler.

Easily distinguished from *G. verus* by its double row of subcaudals, and coloration likewise. For an interesting account of the habits of the Geckotidæ see Col. Tytler's observations, J. A. S., XXXIII., 535, though I cannot adopt my friend's views in classification or nomenclature.

*G. monarchus, Dum. et Bib. Malayan Peninsula. (Ceylon?)

PTYCHOZOON, KUHL.

37. P. HOMALOCEPHALUM, D. et B.
a. ..... Pegu. Major Berdmore.

The specimen was taken from the mouth of a Chryspelea ornata, which commonly feeds on Geckos.

HEMIDACTYLUS, CUVIER.

38. H. COCTÆI, D. et B.
Boltalia sublævis, Gray, apud Gunther.
a. many specimens. Calcutta.
Very large female. Body 2.75, tail 1.75 = 4.50.

In males five (six) femoral pores in each thigh widely separated by the pubic region. Tail more or less verticillate, feebly spined. In the largest specimen, which was a female, the tail was lanceolate, and very bulging at the base. Back uniformly granular, with a few scattered larger flattened tubercles along the sides. The thumb has a minute claw. Neither Gray nor Gunther give the number of femoral pores so distinctive of the species. The largest museum specimen from Calcutta is only 4.50 inches. In the Museum no specimens are recorded from any other locality.

39. H. KELAARTII, Theobald.
H. Coctæi, D. et B. on label.
a. three specimens. Ceylon. Dr. Kelaart.
Adult male. Body 2.50, tail 2.25 = 4.75.
28 to 34 femoral pores, interrupted in the pubic region.

Tail more or less verticillate and spined, sometimes simple, (normally, not from reproduction.) Back uniformly granular, with a very few small flattened tubercles on the shoulder and loins. This species differs from *H. frenatus* in the femoral pores not forming a continued line; in the scarcity of large tubercles in the back; in the thumb being of proportionate size (not very small); and in size which is larger than in *H. frenatus*, Sch., as I believe it to be from Birmah. This is the *H. Coctæi* of Kelaart most probably mentioned by Gunther.

40. H. LESCHENAULTII, D. et B.

a. four specimens. Nilghiri Hills. W. Theobald, Jr., Esq.

Adult male. Body 2.25, tail 2.50 = 4.75.

Femoral pores 20 to 25 in two lines separated in the pubic region.

Back uniformly granular, with numerous scattered flat tubercles. Tail verticillate, six spined.

41. H. MACULATUS, D. et B.

H. Pieresii, Kelaart.

a. four specimens. Ceylon. Dr. Kelaart.

Femoral pores 32 to 36, in a nearly continued line. The 12 central pores somewhat better defined than the rest.

42. Many small specimens (?)

43. H. SUBLÆVIS, Gray.

Boltalia sublævis, Gray.

H. Coctæi, D. et B., apud Gunther.

a. many specimens. Mergui, Ceylon. Capt. Berdmore, Dr. Kelaart.

b. large tail-less specimen.

I am not quite sure if a claw is always present on the thumb, but a small almost setiform claw is sometimes noticeable. Thumb small.

Femoral pores 30 or 33, in a continuous line *not interrupted*. Pores obliquely pierced in the scales. Back minutely granular, with two lines of somewhat larger tubercles down the sides.

44. H. FASCIATUS, Gray (?)

a. a bleached specimen, tail injured.

Twenty rows of small ovate tubercles down the back. Tail slender, rounded, faintly ringed, but tubercular.

PERIPIA, GRAY.

45. P. CANTORIS, D. et B.

Hemidactylus Peronii and Platydactylus lugubris, Cantor apud Gunther.

Gecko Harriettæ, Tytler MSS.

a. young, in spirit. Andamans. Lieut.-Col Tytler.

Back uniformly granular. Tail rounded above, flat below, granular above. small scales below, with no large plates. Edges sharp, minutely denticulated. Chin shields none, but about 12 or 15 scales longer than the very minute scales of the throat. Olive brown with some scattered velvet black spots. Beneath white minutely brown dotted. Body 1.50, tail 1.25 = 2.75.

* P. Peronii, Dum. et Bib. Birma.

NYCTERIDIUM, Gunther.

* N. platyurus, Schneid. .....

DORYURA, Gray.

46. D. Berdmorei, Blyth.
Leiurus Berdmorei, Blyth.
a. several specimens. Mergui. Capt. Berdmore.

PHELSUMA, Gray.

47. P. Cepedianum, Peron.
a. two specimens. Mauritius. W. Earl, Esq.

48. P. Andamanense, Blyth.
a. one specimen. Andamans. Capt. Hodge.

GYMNODACTYLUS, Spix.

49. G. Jerdonii, Theobald.
a. b. two specimens.

a. Male. Back uniformly granular. Tail with a single row of large subcaudal plates or scuta, with a few large scales along their edges. A strong double fold on the throat. Scales of the belly small rhombic. Along the sides two rows of distant erect spines, becoming obsolete on the tail. Sides keeled. Pubic region covered with same scales as the belly. No large præanals. Femoral pores eight on each thigh; large, cup-shaped, placed along the hinder edge of limb, bordered in front by rather largish scales, and behind by the granular scales of the back. Length, head and body 1.50, tail 1.50 = 3.00. Colour (in spirits) above, greenish gray mottled with brown, beneath, greenish white. Nine upper and seven lower labials. Nostrils close behind the rostral. Lower rostral large, just separates a pair of small triangular chin plates. Allied to *G. Mysoriensis* by its spines, but not to be identified with any species described by Jerdon.

50. G. Geckoides, Spix. Punjab Salt Range. W. Theobald, Esq.

Præanal pores twenty-five to thirty, in a nearly straight series and in a continuous line.

51. G. ———
a. small species in a bad state.

* G. triedrus, Gunther. Ceylon.
* G. pulchellus, Gray. Penang, Singapore.
* G. frænatus, Gunth. Ceylon.
* G. Kandianus, Kelaart. Ceylon.
* G. Mysoriensis, Jerdon. Bangalore.
* G. Indicus, Gray. Nilghiris.
* G. Malabaricus, Jerdon. Malabar.
* G. littoralis, Jerdon. Malabar.
* G. Deccanensis, Sykes. Dakhan.

NAULTINUS, Blyth.

52. N. variegatus, Blyth. J. A. S. XXVIII., p. 279.

Gymnodactylus variegatus,
Blyth apud Gunther. ....
a. type specimen. Tenasserim (?) W. Atkinson, Esq.

Fine male. Femoral pores thirty in an uninterrupted line. The six central or præanal pores are strongly marked and conspicuous. On either side of them the femoral pores are well defined, at the extremity of the line, but become fainter, though present, towards the group of anal pores, which consequently looks isolated, though really standing in one continuous line.

53. N. fasciolatus, Blyth, XXIX., p. 114.

a. b. two young specimens.
in spirit. Subathoo.

These two species are, as Mr. Blyth says, closely allied, and I am far from confident that they are not the same species, the difference between them being sexual. *N. variegatus* is founded on a fine male. *N. fasciolatus* on probably young females. We are not yet in a position to state, from these three specimens, the extent to which the colour marking may vary in individuals; and the banded ornamentation of *N. fasciolatus* is the most prominent distinction between the two species.

Naultinus is I think a well founded genus, connecting Gymnodactylus and Eublepharis. The toes are long and unequal, slender and spreading, as in Gymnodactylus, differing therein from Eublepharis which has the toes subequal and stouter, whilst the ornamentation of the back, being a granular surface regularly shagreened with larger tubercles, and the ornate style of coloration approximates to Eublepharis.

PUELLULA, Blyth.

54. P. rubida, Blyth.

a. several specimens. Andamans. Capt. Hodge.

EUBLEPHARIS, Gray.

55. E. Hardwickii.

a. b. young specimens. Chaibassa. Capt. Haughton.

56. E. macularius, Blyth.

Cyrtodactylus macularius, Blyth.
a. type specimen. Salt Range. W. Theobald.

HOMONOTA, Gray?

57. H. fasciata, Blyth.

a. in spirit, (very bad state.) Central India (?) Dr. Jerdon.

Limbs very slender. Toes 5—5 *subequal*, slightly *dilated*, with cleft plates beneath. Terminal joints clawed. Head shaped as in Hemidactylus, and covered with small smooth polygonal scales. Body covered with elongate, rhomboidal scales, very faintly keeled. Belly covered with similar scales, but much smaller and smooth. Upper and lower labials 8, band-like. Eye close to the gape. Eyelids with a series of largish scales, and marked above the eyebrow with a double line of *most minute* scales. Largest scales in the semicircular space between the eyebrow, and with a marked, but not prominent, orbital ridge.

Scales of limbs small, on inner side of fore arm, granular. Ear an oblique slit; tympanum hidden; chin shields 3. Scales of throat, small, equal, granular.

Gray with transverse white bands; beneath, pale blueish ashen. Very bad state.

FAM. AGAMIDÆ.

DRACO, Linnæus.

58. D. FIMBRIATUS, Kuhl.

a. b. male and female. Sumatra, Penang (?) Messrs. Edwards and Foster.

I cannot verify this species with certainty, so I give a few notes of it.

Scales of the back moderate, smooth, irregular and certainly not "equal" as described by Gray. (Brit. Mus. Cat. Lizards, page 234.) Scales of throat granular: those of belly and tail sharply keeled. Tympanum naked, smaller than the eye. Scales of gular pouch smaller and less keeled than those on the side lappets. Wings ornamented below with broad, rather maculate or broken up, dark brown bands. Above, this band-like arrangement of colour is not seen, but only a spotted ornamentation. Scales of head unequal, keeled. Some tubercular scales about the nape, but no orbital spines or tubercles. A black spot between the orbits and a second on the nape. Nape crested in the male.

59. D. TÆNIOPTERUS, Gunther.

D. lineatus, D. et B. apud Blyth.

Dorsal scales small, subequal, faintly keeled. An irregular line of keeled tubercular scales along each side. Tympanum naked, much smaller than the eye. Nostrils directed upwards. No orbital tubercle. Scales of belly moderately keeled. Gular pouch partly covered with large smoothish scales. Upper labials 6 to 8.

a. 2 males, 3 females. Tenasserim. Major Berdmore.

60. D. VOLANS, L.

a. female. Singapore. C. T. Watkins. Esq.

Gunther says, the scales of the back are "slightly keeled," but I can detect it in our specimen, in which respect it approaches *D. cornutus*, Gunther, but differs from it in wanting a nuchal crest.

61. D. MACULATUS, Gray.

a. 2 males and 1 female.	Malacca and Tenasserim.	Majors Tickell and Berdmore.

The scales of the back are not keeled as stated by Gray, but only a few of them. The lateral row of keeled tubercles, scaled tympanum and spotted coloration of the wings readily distinguish this species.

62. D. DUSSUMIERI, D. et B.

a. *b*. males stuffed.	.....	Madras Museum.
c. female ditto, tail injured.		

It is to be regretted these specimens were not preserved in alcohol. Such specimens as these covered with varnish and dirt, fragile, shrunken, and with their pouches stuffed to bursting with cotton wool are toys and caricatures, and next to useless to the student, for purposes of comparison.

SITANA, CUVIER.

63. S. PONTICERIANA, Cuv.

a. two males, three females, and young.	Ceylon.	E. L. Layard, Esq. and Dr. Kelaart.
b. *c*. adults stuffed.	Coromandel Coast.	

* S. minor, Gunth. Madras, Ceylon (?)

LYRIOCEPHALUS, MERREM.

64. L. SCUTATUS.

a. three adults.	Ceylon.	Dr. Kelaart.
b. one ditto.	Ditto.	Ditto.
c. stuffed ditto.	Ditto.	E. L. Layard, Esq.
d. ditto young, bad state.	Ditto.	Ditto.

COPHOTIS, PETERS.

* C. Ceylonica, Pal. Ceylon.

CERATOPHORA, GRAY.

* C Stoddartii, Gray. Ceylon.
* C. Tennentii, Gunth. Ditto.
* C. Aspera, Gunth. Ditto.

OTOCRYPTIS, WIEGMANN.

* O. bivittata, Wieg. Ceylon.

DILOPHYRUS, Gray.

* D. grandis, Gray. Rangoon.

BRONCHOCELA, Kaup.

* B. jubata. Pondicherry?

TIARIS, Dumeril et Bibron.

65. T. subcristata, Blyth.

a. many specimens.	Andamans.	Capt. Hodge.
b. small individual.	Ditto.	Lt.-Col. Tytler.
Sent as *Calotes Harriettæ*, Tytler MSS.		
c. many specimens.	Ditto.	Ditto.

ORIOTIARIS, Gunther.

* O. Elliotti, Gunth. Sikim.

ACANTHOSAURA, Gray.

66. A. armata, Gray. Birma. Major Berdmore.

SALEA, Gray.

67. S. Jerdonii, Gray.

Calotes viridis, Gray, apud Blyth. (Mus. Label.)

a. four specimens.	Nilghiris.	Dr. Jerdon.

Labelled from "South India," but, according to Jerdon, found on the Nilghiris only.

Readily distinguished from Calotes by the nasal plate being pentagonal, resting on the first or first and second upper labials, with a row of large plates behind it above the labials. In Calotes the nasal plate is oval and separated from the labials by two rows of very narrow scales.

CALOTES, Cuvier.

68. C. versicolor, Daud.

a. many specimens.	Ceylon.	G. L. Layard, Esq. and Dr. Kelaart.
b. many specimens.	Martaban.	Major Berdmore.
c. adult stuffed.	Scind.	Sir A. Burnes.
d. ditto ditto.		

This species, as remarked by Gunther, seems to attain a larger size in Ceylon than elsewhere. I cannot help, however, suspecting that specimens from all parts of India have been huddled into the two bottles labelled "*Ceylon*" and "*Martaban*," else, how comes it, there are no specimens in the Museum of our commonest lizard from other parts?

Dr. Gunther states that, both "Jerdon and Blyth agree that these bright changeable colors are peculiar to the male, during the breeding season, which falls in the month of May and June," but does not express himself as though fully prepared to admit the opinion of such competent observers. His words are obscure,—"the ground colour is generally a light brownish olive, but the lizard can change it to bright red, to black, and to a mixture of both." These words imply a voluntary effort on the part of the animal which I doubt, but from observations I am inclined to believe rather that the colors vary during the breeding season, (that is the bright seasonal red and black) under the *involuntary stimulus* of fear, anger or passion. Gunther makes no mention of the two black occipital specks, rarely absent in this species, or of the white band running from the ear down each side, which so commonly marks the females. In Bengal or Pegu, I have myself never remarked the brilliant seasonal red of the male extending even to the loins. In Pegu I have noticed this vivid coloration in early spring. My largest Burmese male measured 3.75 + 11.00 = 14.75. Gunther gives 16 inches as the length of Ceylon specimens, but such dimensions are rare on the continent.

69. C. MYSTACEUS, D. et B.

a. two adults.	Ceylon.	E. L. Layard, Esq.
b. one adult.	Mergui.	W. Theobald, Esq., Jnr.

I can by no means understand Dr. Gunther's description of *C. mystaceus*, unless on the supposition that he has confounded two species, as his measurements far exceed anything I ever saw, and are very disproportionate, 19 inches of tail to 5 inches of body in an old male. My largest male, (and the species is common in Pegu where it is called "the Chameleon" by Europeans) measures body 4.25, tail 6.00 = 10.25. My largest female, 3.90 × 7.90 = 11.80. Specimens occur a little longer, but these are fully up to the average of adults. I will add a description of the color from life, the tints being very variable. Color dark brown, often ruddy vinous, with a conspicuous white band from the nostrils to behind the shoulder; and sometimes to the base of the tail. Sometimes only a few dead white spots on body or white or yellow blotches on the shoulders. Seasonably, (spring and rains) the male assumes a gorgeous hue, the gular sack, and even the entire fore part of body, becoming a bright deep blue. In spirit, the blue fades to green in a few hours, and eventually all the colours, save the rusty shoulder blotches and white side streak, which is generally well defined, disappear.

70. C. EMMA, Gray.

a. four adults and 2 young.	Mergui.	W. Theobald, Esq., Junr.
b. several fine adults and young.	Martaban.	Major Berdmore.

71. C. OPHIOMACHUS, Merr.

a. many specimens.	Ceylon.	E. L. Layard, Esq. and Dr. Kelaart.
b. adult.	Nicobars.	Capt. Lewis.
c. adult var.	S. India or Ceylon (?)	

The specimen c. is remarkable for wanting the vertical bands of this species, but in place of these it has a strongly defined white line down each side of the spine, from the shoulder, to a short distance along the tail. The tail is very long, as is the case with this species.

Body 2.6, tail 10.00 = 12.60.

72. C NEMORICOLA, Jerdon, J. A. S., XXII, p. 471.

a. type specimen (?)	Koonoor Ghat, Nilghiris.	Dr. Jerdon.

Closely allied to *C. Gigas*, also found at the same locality. Differs in its *green color, larger smooth scales, less developed crest*, and small scales about the shoulder fold. These characters united are more than mere sexual variations, but the two species are nearly allied.

73. C. GIGAS, Blyth, J. A. S. XXII., p. 648.

C. ophiomachus, Merr, J. A. S., XI., 870.

a. adult, in spirit.	Mirzapore.	Major Wroughton.
b. ditto.	Nilghiri hills.	W. Theobald, Jnr., Esq.

The original specimen mentioned in J. A. S., XI. is no longer extant.

74. C. TRICARINATUS, Blyth, J.

A. S., XXII., p. 650.	Darjeeling.	Major Sherwill, W. Theobald,
C. maria, Gray apud Gunther.		Junr., Esq.

There is no just ground for uniting these species.

C. platyceps, with which Mr. Blyth contrasts it, is no longer in the Museum, having somehow disappeared, so that I cannot suggest, if it may be the young of this species or no.

* C. platyceps, Blyth, J. A. S., XXI., p. 354.	Khasi hills.
* C. maria, Gray.	Ditto.
* C. Rouxii, D. et B.	India (?)

75. C. NIGRILABRIS, Peters.

C. Rouxii, Du. et Bib. apud Blyth, J. A. S., XXII, p. 647.

33 × 11.7 = 15.0.

Head trigonal, shelving; nostrils lateral, sub-apical, in after part of a small rather tumed ovate scale. Rostral broad, flattened, with 5 scales above it in a row, the two outer rather larger, and in front of the nasal. Upper labials. Eyelids covered with rows of granular scales. From over nasal to behind orbit, a row of seven elongate overlapping scales. Nuchal and dorsal crest moderate from nape to tail, highest on the nape. Above and a little behind the tympanum a group of 3 reverted spines. A fold on either side of throat. Scales slightly keeled, rhombic, with minutely denticulate ends in slightly descending order, subequal: belly scales rather large and strongly keeled

and spined. Scales of head small, smooth, polygonal; those of limbs moderate. Scales in the lumbar region very small, smoothish; at the base of tail very large; few lines as large as lumbar scales, very strongly keeled. Colour green, a black band along the upper jaws involving the tympanum. A pale streak from the tympanum to shoulder. Scales of throat large, keeled: no gular pouch. Tail bulging at base, round, long, and tapering.

BRACHYSAURA, Blyth.

B. ornata, B. J. A. S. 1856, p. 448. Type no larger in Museum.

CHARASIA.

76. C. dorsalis.

a. 3 specimens.	Nilghiris, Koonoor.	W. Theobald, Junr., Esq.

LAUDAKIA.

77. L. tuberculata, Gray.

L. melanura, Blyth.
Stellio Indicus, B. apud Gunth.

a. young female in spirit.	Simla.	W. Theobald, Junr., Esq.

STELLIO.

78. S. Indicus, Blyth.

S Cyanogaster, Rupp.?

a. adult.	Mirzapore.	Major Wroughton.
b. half grown (bifid tail.)	Agra.	F. L. Stewart, Esq.
c. ditto.	Kashmir.	W. Theobald, Junr., Esq.

The two species (*L. tuberculata* and *S. Indicus*) are very closely allied. Unfortunately the specimens are not sufficiently numerous for a full comparison. The most obvious distinction seems to be in the scales of the back, which in *L. tuberculata*, are larger, with the keels forming distinct longitudinal lines. The sole specimen is a female, and the character is probably more decided in males: in the museum specimen, it is more conspicuous than in larger specimens of *Stellio*. In *S. Indicus* too the sides are armed with spiny scales, and the coloring seems more varied.

AGAMA.

79. A. agilis, Oliv.	Punjab Salt Range.	W. Theobald, Junr., Esq.
80. A. ruderata, Oliv.		
a. young specimen.	Somali land.	Lieutenant Speke.

MOLOCH, Gray.

81. M. horridus, Gray.

a. b. adult and young in spirits. W. Australia. Dr. J. McClelland.

This species may pertain to the next family.

FAM. UROMASTICIDÆ.

The genera *Uromastix, Liolepis* and *Phrynocephalus,* form a very natural Family quite distinct from the Agamidæ amongst which Gunther and other systematists have classed them. They are all ground lizards, burrowing in sandy soils, of very gentle and placid disposition and herbivorous. The larger species are esteemed for food, and for their presumed invigorating properties. They are of social habits, usually associating in small communities; their burrows being often congregated together, like those of rabbits. *Phrynocephalus* is strictly monogamous.

Uromastix Hardwickii, as noted by myself in the Punjab, never goes from its burrow till the sun is well up, and grazing near the mouth for some hours, retreats again during the excessive heat. In the evening they re-appear, and finally retire as the dusk comes on, or earlier, if it is chilly. They seem sensitive to climatic changes and carefully close their burrows with sand, so that they escape notice unless searched for. *Phrynocephalus* and *Liolepis* both do the same, and an open burrow will generally be found untenanted. *Uromastix* shows no wish to bite when taken in the hand, and for all its claws and spines is a very Quaker among lizards. *Phrynocephalus* is equally gentle, and *Liolepis* also, I believe.

UROMASTIX, Dumeril et Bibron.

82. U. Hardwickii, Gray.

a. Superb specimen in spirit.	Upper Provinces.	Major Wroughton.
b. two specimens.	Agra.	C. L. Stewart, Esq.
c. stuffed species.	Sind.	Sir A. Burnes.

LIOLEPIS, Cuvier.

83. L. Reevesii, Gray.

a. large specimen.	Arakan.	Col. Phayre.
b. three half grown specimen.	Martaban.	Major Berdmore.
c. six smaller.	Ditto.	Ditto.

PHRYNOCEPHALUS, Kaup.

84. P. caudivolvulus, Pall.

P. Tickelii, Gunther not Gray.
P. Theobaldi, Blyth.
a. 2 males, a female and a fœtus. Shores of Lake Chomoriri. W. Theobald, Jnr., Esq.

I should not describe the tail as depressed, except at its base, but there is no doubt it is the *P. caudivolvulus* of Pallas. The black belly and tail tip are characteristic of the male. The female is smaller and dull coloured, and produces two or three young. They are of monogamous habits, and the pair occupy a burrow, a few inches deep in the sandy soil, the opening of which is often concealed by a stone or tuft.

FAM. CHAMÆLEONIDÆ.

CHAMÆLEO.

85. C. Zeylanicus, Laur.

a. female in spirit with eggs.
a fine specimen. Midnapore. Major Wroughton.
Without removing this specimen from the bottle, it is clear that it contains not less than 30 to 35 eggs, though Gunther asserts that they lay only 10 or 12.
b. bad state.

86. C. verrucosus, Blyth, (not Cuv.,) J. A. S., XXII., 640.

a. fine specimen in spirit. ..... Old collection.
Closely allied to C. dilepis, Leach.

ORDER OPHIDIA.

First Sub-order.

SERPENTES.—COLUBRINI INNOCUI.

FAMILY TYPHLOPIDÆ.

TYPHLINA, Wagler.

T. lineata, Dum. et Bib. Pinang.

TYPHLOPS, Dumeril et Bibron.

T. nigro-albus. Dum. et Bib. Pinang.

Back blackish, belly yellow. Colors well defined.

T. horsfieldii, *Gray.*

Argyrophis bicolor, Gray.

a. b. Typhlops nigro-albus, Dum. et Bib.
c. Argyrophis Diardii, Dum. et Bib. } *apud Blyth.*

These specimens appear to me to belong rather to *T. Horsfieldii* than to *T. nigro-albus*, as I cannot satisfactorily distinguish, with a lens, any suture above the nostril, and the coloration too of the back and belly is much blended. It is, however, difficult to distinguish the sutures of specimens long preserved in spirit. *a* has a conspicuous pit below the nostril, as in *T. bothriorhynchus*, but no trace of the small anterior pit described by Günther.

T. bothriorhynchus, Günther. Pinang.

A groove below the nostril in the suture between the nasal and fronto-nasal, and a smaller one between the rostral and nasal.

T. striolatus, Peters. Bengal.

T. braminus, Daud.

a. many specimens. Bengal, Assam, Sylhet.

T. tenuis, Günther.

Argyrophis Braminus Daud, apud Blyth.

a. b. c. three specimens. Bengal.

These would seem to belong to *T. tenuis*, Günther, but are much more slender than his figure in the Cat. Brit. Ind. Reptiles pl. XVI. *fig. C.* which was from probably a very old specimen. The largest specimens measure 7.5, circumference 0.30.

4. T. ——— ?

a. very slender specimen. No record.
Body, 13.00
Tail, 0.50

13.50 Circumference, 0.60.

Body uniform throughout, leaden grey, rather paler beneath, under tail yellowish.

T. MIRUS, Jan. Ceylon.

Like *T. Braminus*, with yellow snout.

ONYCHOCEPHALUS, DUMERIL ET BIBRON.

O. ACUTUS, Dum. et Bib.

a. five specimens. Chaibassa. Major Haughton.

FAMILY UROPELTIDÆ.

RHINOPHIS, HEMPRICH.

R. OXYRHYNCHUS, Schneid. Ceylon, (Kandy.)
R. PUNCTATUS, Muller. Ceylon.
R. PLANICEPS, Pet (Philippinus.) Ceylon.
R. TREVELYANUS, Kelaart. Ceylon, (Kandy.)
R. SANGUINEUS, Beddome. Cherambady in the Wynaud.
R. BLYTHII, Kelaart.
a. nearly full grown. Kandy. Dr. Kelaart.
R. PULNEYENSIS, Beddome.
a. Three specimens (one injured). Kandy. Dr. Kelaart.

I have little doubt of the identification or locality; so these specimens prove the occurrence of a Ceylonese species on the mainland, as might have been predicated.

UROPELTIS, CUVIER.

U. GRANDIS, Kelaart. Ceylon. Adam's Peak, Matura.

SILYBURA, PETERS.

S. MACROLEPIS, Pet.
S. BEDDOMII, Günth. Anamullay hills.
S. OCELLATA, Beddome, Walaghat, Nilghiris.
S. ELLIOTTI, Gray. Madras.

S. BICATENATA, Günth. Dakhan.
S. SHORTTII, Beddome, Shevaray hills.
S. BREVIS, Günth. Anamullay and Nilghiri hills.

PLECTRURUS, DUMERIL ET BIBRON.

P. PERROTETII, Dum. et Bib.
a. five specimens. Ootakamund. W. Theobald, Junior, Esq.
Very common under stones at "Ooty."
P. GÜNTHERI, Beddome. Walaghat.

MELANOPHIDIUM, GÜNTH.

M. WYNAUDENSE, Beddome. Wynaud. (not Wynand, as spelt by Günther.)

FAMILY TORTRICIDÆ.

CYLINDROPHIS, WAGLER.

C. MACULATUS, L.
a. Ceylon. Dr. Kelaart.
C. RUFUS.
a. an adult.

FAMILY CALAMARIDÆ.

CALAMARIA, BOIE.

C. CATENATA, Blyth, Assam. W. Robinson, Esq.
J. A. S. XXIII. 287.
The type specimen is no longer in the Museum.
C. QUADRIMACULATA, DUM. et BIB. Rangoon.

The species of this genus are mostly from the Indian Archipelago, though I have noted one species in Pegu. The species described by Mr. Blyth, except perhaps *C. catenata*, all belong to other genera, but will be noticed elsewhere.

GEOPHIS, WAGLER.

G. MICROCEPHALUS Günth. Nilghiris.
G. (PLATYPTERYX PERROTETI, Dum. et BIB. Nilghiris.)

ASPIDURA, Wagler.

A. BRAYORRHOS, Boie.

a. Kadriganam. Dr. Kelaart.

A. COPII, Gunth.

A. TRACHYPROCTA, Cope.

HAPLOCERCUS, Günther.

H. CEYLONENSIS, Günth.

FALCONERIA, GEN. NOV.

Scales faintly keeled in seventeen rows. One anterior transverse frontal rather small. Two posterior frontals which enter the orbit. Upper labials five. Pupil round.

F. BENGALENSIS, n. s.

Head not very distinct from body, rather ovate and elongate, rather narrowed in front. Nostril almost dividing a small nasal (perhaps two small nasals). Loreal one, small, squarish. Ante-ocular very elongate. Upper labials five. The first very small, second and third enter the orbit, fourth and fifth large, increasing in size regularly from the first backwards. Anal bifid. Three undivided sub-caudals, the others divided.

a. Type specimen. Parisnath. A. Grote, Esq.

This species approaches the Ceylonese genus *Haplocercus*, but differs too materially to be considered a second species, and I have therefore formed a new genus for its reception, bearing the name of the late eminent Palæontologist whose loss is still so fresh amongst us.

BLYTHIA, GEN. NOV.

Scales smooth in thirteen rows. Loreal none. Ante-ocular none, both replaced by a very large posterior frontal. Pupil round, sub-caudals bifid.

B. RETICULATA, Blyth.

Calamaria reticulata, Blyth, J. A. S., XXIII.

Nostril in a small oblong shield. Frontals two pairs, anterior small; posterior very large. Vertical and superciliary moderate or smallish. Posterior frontal forms a suture with the nasal, second and third upper labials, the superciliary and vertical which has an obtuse angle in front. Upper labials six. First very small; third and fourth enter the orbit; sixth largest.

Occipitals large; lower labials five; 1st moderate, 2nd and 3rd small, 4th large, 5th band-like, narrow. The first lower labials form a suture, and are followed by a pair of very large chin shields which are again followed by a pair of small ones, the suture falling in the centre of the 4th lower labial. Anal bifid. Tail round, short.

a. b. type specimens. Assam. W. Robinson, Esq.
Color "shining dull black, brilliant and iridescent with white specks on side."

This species was originally described most imperfectly by Mr. Blyth. (*l. c.*) but it differs so from *Calamaria*, that I am forced to refer it to a new genus, bearing the name of my eminent friend.

GROTEA, GEN. NOV.

Scales smooth in seventeen rows. Loreal one, small. Frontals two, transverse, one anterior, one posterior. Pupil round.

G. BICOLOR, Blyth.

Calamaria bicolor, *Blyth*, J. A. S. XXIII. 289.
C. hypoleuca, *Blyth.*
Ablabes bicolor, *Blyth*, *apud Günther?*

Nostril pierced in the centre of a large nasal. Loreal small. Rostral broad. Anterior frontal transverse, two-thirds as broad as rostral. Posterior frontal transverse, broader than rostral. Ante-ocular one, small. Postoculars two, small. Superciliaries small. Vertical five-sided, broader than long, base in front, sides next to base only as long as superciliaries. Occipitals large. Upper labials five. Third higher than the rest, enters the orbit; fifth largest. Anal bifid. Eye small.
Colour "dusky plumbeous above, buffy white below, gradually blending."
It is quite impossible to retain this species as a *Calamaria*, and I have accordingly separated it as a new genus, named after the present indefatigable President of our Society. Günther refers this species to his *Ablabes bicolor*, but he describes the nostrils as between "*two small shields*" which is not the case in our type. Günther seems to make "*Ablabes*" the receptacle of forlorn species of *Calamaridæ*.

TRACHISCHIUM, GÜNTHER.

Scales smooth, in thirteen rows. Posterior frontals, united. Pupil round.

T. FUSCUM, Blyth.

Calamaria fusca, *Blyth*, J. A. S. XXIII. 288.
Trachischium fuscum, *Blyth*, (Museum label.)
Calamaria (*and trachischium*) *obscuro-striata*, *Blyth.*

Anterior frontals minute. Posterior frontal single, very large, larger than vertical; vertical rather small, pointed behind, truncate in front. Superciliary large, one-third as large as vertical. Loreal small, elongate: ante-ocular one, post-ocular one, rather larger: upper labials six. 1st very small, 3rd and 4th enter the orbit, 6th largest. Anal bifid. "Iridescent brown-black, under parts particularly lustrous." Obscurely streaked also with pale lines, but these are now faded and obsolete.

a. Two adults and one young. Darjiling. W.T.Blanford, Esq.

b. Two specimens (one injured.) Rangoon. (?) Purchased.

I think the peculiarity of the single posterior frontal a good generic mark of separation from both *Ablabes* and *Calamaria*, and adopt consequently Günther's genus. (Brit. Mus. Cal. *Colubrine* Snakes, page, 30.)

FAMILY OLIGODONTIDÆ.

OLIGODON, Boie.

O. subpunctatus, Dum. et Bib.	
a. one adult, many young.	Bengal, Assam, Malabar, Pinang.
O. subgriseus, Dum. et Bib.	Anamallies.
O. spilonotus, Günth.	Madras.
O. elliotti, Günth.	Ditto.
O. spinipunctatus, Jan.	Calcutta.
O. fasciatus, Günth.	Dakhan.
O. sublineatus, Dum. et Bib.	Ceylon.
O. affinis, Günth.	Anamallies.
O. templetonii, Günth.	Ceylon.
O. modestus, Günth.	Ceylon (?)
O. dorsalis, Gray.	Afghanistan. (?)
O. brevicauda, Günth.	Anamallies.

SIMOTES, Dumeril et Bibron.

S. bicatenatus, Günth.

a. five adults.		
b. two ditto.		
c. two ditto.	Pegu.	W. Theobald, Junior, Esq.
d. one ditto.	Ditto.	Ditto.

These specimens have the lower ante-ocular very small, thereby differing from *S. punctulatus*. As, however, the coloration is much like var. γ of *S. punctulatus*, I think they may belong to the allied species Günther names, without fully describing, *S. Labuanensis*, Günth., which has a small lower ante-ocular.

e. two young.	Jessore, Mergui.

One specimen has a minute lower ante-ocular, and is doubtless, *S. bicatenatus* from Mergui. The other probably belongs to a variety, perhaps to *S. albiventer*.

f. four young. (?)	Ceylon.	E. L. Layard, Esq.
g. two young. (?)	Ditto.	Ditto.

These specimens *f.* and *g.* agree in having only one anteocular and two postoculars all sub-equal. Unless all young, they may possibly belong to Günther's *S. albiventer*, though they have a loreal, which in his type was wanting, possibly a mere individual peculiarity.

S. ALBOCINCTUS, Cantor.

Xenodon purpurascens, black-zoned var.

Ditto ditto, white-banded var.

a. two adults.	Assam.	Mr. Robinson.
b. two adults, one young.		

These differ from the type in having the ante-oculars only two in number and sub-equal.

S. RUSSELLII, Daud.

a. one large and one small specimen.

b. two adults, one young. C. and S. India, Ceylon, Omerkantak.

I do not quite understand how these snakes can come from four localities as these are stated to do. This vagueness in labelling is much to be deprecated.

S. ———— ?

a. five adults.	Goalpara.	Dr. Thornburn.

* S. VENUSTUS, Jerdon. West coast.

S. BINOTATUS, Dum. et Bib. Nilghiris.

* S. ALBIVENTER, Günth.

* S. PUNCTULATUS, Günth. Nepal, Khasi hills.

I am much inclined to question the soundness of Günther's splitting *S. purpurascens* into so many shreds as he has done, that is, of giving specific rank to its different varieties. The varieties are perhaps local, but I am far from sure that the number of scales and the size of the oculars relatively and positively is sufficiently fixed to form the basis of specific separation. The pattern, I admit, is wonderfully inconstant, but the head-markings and aspect of what have hitherto been ranked as varieties of *S. purpurascens*, have so strongly marked and uniform a character, that I incline to the old arrangement rather than to the new. A better series than we possess in this Museum is much wanted, and an authentic one as far as locality, to aid in solving this point.

S. CRUENTATUS, Th. n. s.

Scales in seventeen rows. Nasals large, loreal small, anteocular one, postoculars two, anal bifid. Upper labials seven, fourth and fifth enter orbit. Eye moderate, pupil large, black. Habit more slender than *S. bicatenatus*. Colour above uniform umber-brown, without markings, the colour extending over the edges of the ventral plates, beneath yellowish white, with numerous square black blotches. Tail beneath

bright deep coral red, mottled with black, tongue red. Sometimes anal deep red, with a black band behind the vent. Common about Rangoon and Pegu.

a. type specimen. Rangoon. W. Theobald, Junr., Esq.

S. OBSCURUS, Th. n. s.

Form stout, scales smooth, in nineteen rows. Anal entire. Rostral well produced backwards. Anterior frontals narrow, oblique, their hinder points almost reaching the vertical (in one specimen they do). Posterior frontals rhomboidal. Vertical and occipitals very broad. Loreal minute. Præocular one: postoculars two, in all equal. Upper labials eight; fourth and fifth enter the orbit; fifth highest, narrow. Three pair of chin shields, the second just touching the fifth lower labial. Ventrals broad. Tail very stout. Colour uniform yellowish dusky, darker beneath.

a. two specimens.

A somewhat aberrant Simotes (?) without any record of donor or locality.

S. CRASSUS, Th. n. s.

Scales smooth, in nineteen rows. Præoculars two; the lowest is small. and looks like a detached piece of the 4th lower labial. Postoculars two, small, sub-equal. Anterior frontals not much smaller than posterior ones. Vertical pentagonal, straight in front, sides converging. Occipitals very broad in front, just touching lowest postocular. Upper labials nine, 5th and 6th enter the orbit, 8th largest. Chin shields three pairs, with a median groove between.

Colour uniform brown throughout, with faint markings on the head, yellowish beneath.

This specimen was, by a clerical error, labelled "*Cerberus boæformis, Lower Bengal,*" and is so rammed into its bottle, that I do not like to completely extract it for closer examination. It must be nearly three feet long, and is stout in proportion. No record of donor.

FAMILY CORONELLIDÆ.

ABLABES, DUMERIL ET BIBRON.

A. TENUICEPS, Blyth.

Calamaria tenuiceps, Blyth, J. A. S., XXIII., p. 288.

a. type in bad state. Darjiling. Major Sherwill.

This species, by its thirteen rows of scales, is a transitional form towards the *Calamaridæ*, but with the plates of the head normal and none united as in that Family. This character of some of the plates of the head being united, which marks the *Calamaridæ*, induces me to exclude from this genus two species included by Günther,—*Ablabes fuscus*, B. and *Ablabes bicolor*, B. separated in this Catalogue as *Grotea bicolor* and *Trachischium fuscum*, and both included among the *Calamaridæ*.

* A. RAPPII, Günth.	Sikim.
* A. OLIVACEUS, Beddome.	Nilghiris.
* A. SAGITTARIUS, Cantor.	Pinang, Tirhoot, Kangra.
* A. HUMBERTI, Jerdon.	Madras, Ceylon.
* A. COLLARIS, Gray.	Nepal, Khasi hills.

A. SCRIPTUS, Blyth.

Coronella scripta, Blyth.

Closely allied to *A. baliodirus*, but seems to differ too much to be safely united.

Scales in thirteen rows. Anteocular one. Postoculars two, small. Loreal very small, much smaller than postocular. Posterior frontals broader than long. Upper labials, eight. The 3rd, 4th and 5th enter the orbit. A long narrow temporal, forming a suture with both postoculars and 6th and 7th labials; 7th labial largest, more than twice as broad as temporal. Two pairs of chin shields, the hinder rather larger than the other. First in contact with four labials. The second pair in contact with the 5th labial and part of 4th.

Lower labials, seven. 5th largest.

Colour above brown. A few black dots on either side of spine on the front part of trunk. A black mark under the eye, followed by a white upright border involving the postoculars. A black bordered white patch on the last upper labial, and a white collar on nape.

Beneath white.

a.	Martaban.	Major Berdmore.

CYCLOPHIS, GÜNTHER.

C. FRÆNATUS, Günth.	Afghanistan.
C. CALAMARIA, Günth.	Ceylon, S. India.
C. MONTICOLA, Cantor.	

This specimen agrees tolerably with the description of the type, making allowance for individual variation.

Scales smooth, in fifteen rows, no enlarged vertebrals. Nostril in a large oblong shield. Loreal small, half as large as anteocular. Anteocular one, large. Postoculars two, subequal. Frontals broader than long. Anterior ones half as large as posterior. Vertical rather small. Occipitals large. Superciliaries large, two-third as large as vertical. Upper labials seven, 3rd and 4th enter the orbit, anal bifid. Eye rather large, pupil round.

Colour dark olive brown. A broad blackish streak from eye to nape, thinning off into an almost invisible line down the back. Beneath it three filiform dark lines, formed by the dark edges of the scales along the sides.

C. CATENATUS, Th. n. s.

Anteocular one. Postoculars two, the lower very minute. Loreal small. Anal entire. Upper labials six. The 3rd and 4th entering the orbit. Lower labials six. First deep, forming a suture with the opposite one. 2nd small, 4th and 5th very large.

Colour yellowish brown, many scales, black spotted, forming obscure lines down the body. Belly yellowish white. Each ventral with a terminal black dot, forming a conspicuous chain of spots down each side of abdomen.

a. Simla. Purchased.

C. ÆSTIVUS, L.

a. two specimens. North Carolina. Rev. F. Fitzgerald.

CHLOROPHIS, THEOBALD, GEN. NOV.

Aspect much as in *Cyclophis*. Head rather distinct from neck. Eye moderate, round pupil; scales smooth, in fifteen rows. Nostril between two nasals.

C. OLDHAMI, Th. n. s.

Anteocular one. Postoculars two. Loreal longish. Other head shields normal, proportionate.

Upper labials eight, regularly increasing in size. Fourth and fifth enter the orbit, chin shields two pair in contact with six labials. The hinder chin shields a trifle longer than the front one. First lower labials form a suture, 2nd very small, 6th the largest.

Body, ... 11.0

Tail, ... 5.5 = 16.5.

Colour above uniform bronze brown, beneath cuticle in spirit, blue.

a. young. Simla. Purchased.

I have named this interesting ally of *Cyclophis* after Dr. Oldham, Director of the Geological Survey of India, whose advice and encouragement, in the preparation of the present Catalogue, I should not pass by unacknowledged.

ODONTOMUS, DUMERIL ET BIBRON.

* O. NYMPHA, Daud.

* O. SEMIFASCIATUS, Günth.

* O. GRACILIS, Günth. Anamallies.

NYMPHOPHIDIUM, GÜNTHER.

* N. MACULATUM, Günth. India.

ELACHISTODON, REINHARDT.

* E. WESTERMANNI, Reinh.

CORONELLA, LAURENTI. (sp.)

* C. ORIENTALIS, Günth. Dakhan.

C. SAYI, Holbr.

a. adult and young. North Carolina. Rev. F. Fitzgerald. (labelled *Homalopsis buccata.*)

I am doubtful of this determination, but have no means of comparing specimens.

Scales smooth, in 21 rows. Anteocular one. Postoculars two. Loreal small. Upper labial eight, 3rd and 4th enter the orbit. Nostril between two nasals, anal bifid.

Colour deep brown (black?) Back broadly barred with yellow. Belly brown with many scuta, partly yellow-coloured. All the head shields *symmetrically* yellow spotted.

FAMILY DOSYPELTIDÆ.

ELADISTODA, Reinhardt.

E. Westermanni, Rein. Rungpore.

FAMILY COLUBRIDÆ.

PHAYREA, Theobald, Gen. Nov.

Allied to *Coluber* and *Odontomus*. Habit moderate or stoutish; scales smooth, sub-equal, hexagonal. Nasal oblong, reaching to the top of the head, pierced somewhat posteriorly by a moderate nostril with an oblique slit to the first labial, eye full, pupil round, anal bifid.

P. Isabellina, n. s. Th.

Loreal one, anteocular one. Postoculars two. Upper labials eight. Fourth and fifth enter the orbit. Sixth largest. Scales in seventeen rows.

Color buff or yellowish Isabelline brown, with a narrow dark stripe down each side of back, and a broader one on either side of the belly. Belly yellowish, colors strongly contrasted.

Named in compliment to Lt.-Col. Phayre, the highly esteemed, able, and popular Governor of British Birma.

a. Type specimen. Bassein.

COLUBER Linnæus, (sp.)

C. porphyraceus, Cantor. Assam and Khasi hills.

C. quadrivittatus, Holbr. (?) North America.

a. adult, (rather bleached.)

I refer this snake to this species with doubt, having no proper means of determining it.

Scales in twenty-seven rows. Keeled on the back. Nostrils large between two large nasals. Loreal small, squarish. Anteocular one, large, not quite reaching the vertical. Postoculars two, small, equal. Other shields regular, normal. Anal bifid. The hinder frontals are large curving over to supplement the small loreal. Upper labials eight, regular, subequal, 3rd and 4th enter the orbit. Colour buff, darker on back, and a chain of darker oval spots along the side. Length 42 inches. Belly uniform, spotless.

C. Nuthalli, Th.

C. pictus, Carlyle, (mss.)

Scales smooth, in twenty-three rows. Upper labials nine, fifth and sixth enter the orbit. Anteocular one, very large, touching the vertical. Postoculars two, small. Loreal small; longer than broad. On

one side, a small piece is detached from the 4th upper labial and enters the orbit. Vertical large, with sub-parallel sides. Superciliaries very large, almost equalling the vertical rostral, a little broader than high. Nostril rather small, between two large nasals. Lower labials twelve. two subequal pairs of chin shields forming a suture with seven labials. Seventh lower labial much the largest.

Colour reddish grey, with four rows of elongate, rhomboidal, intensely black spots each enclosing a pale ocellus. These spots fade towards the hinder part of trunk and on the tail are replaced by four deep brown bands, two broad dorsal ones and two narrow lateral ones, separated by narrow white bands. An oval black spot from eye to gape.

a. young. Birma. Col. Nuthall.

C. COLUBRINUS, Blyth.

a. in a bad state for description. Darjiling. W. T. Blanford, Esq.

C. (PLATYCEPS) SEMI-FASCIATUS, Blyth.

Scales smooth, in nineteen rows. Anteoculars two, the lower very minute, upper large, touching the vertical. Postoculars two, subequal. Upper labials nine, fifth and sixth enter the orbit. Occipitals very large, nearly twice the size of the vertical, squarely truncate behind. Vertical with very concave sides. Superciliaries large, pointed in front. Loreal square, very small.

Colour pale olive grey, transversely dark, barred and spotted. The bars of the neck breaking up into spots on the body and becoming obsolete behind. A horse shoe mark with the end directed backwards on the occipitals. A pale elongate lateral ocellus on each occipital. Belly white.

a. young specimen. Subathoo. Rev. Cave Brown.

COMPSOSOMA, DUMERIL ET BIBRON. (sp.)

C. RADIATUM, Reinw.

a. adult and 2 young. Ramri. Capt. Abbott.

b. adult.

C. MELANURUM, Schl.

C. RETICULARE, Cantor.

C. HODGSONI, Günth.

CYNOPHIS, GRAY.

C. MALABARICUS, Jerdon.

a. adult. South India. P. Jerdon.

b. young.

C. Helena, Daud. Ceylon, Madras.

PTYAS, Fitzinger.

P. mucosus, L.

a. adult.	Bengal.	
b. ditto.	Port Blair.	Lt.-Col. Tytler.
c. young.	Subathoo.	Rev. Cave Brown.
d. ditto.	Andamans.	Lt.-Col. Tytler.
e. adult.	Calcutta.	Mr. Swarries.

P. Korros, Reinw.

a. half grown,	Ceylon.	Dr. Kelaart.
b.	Darjiling.	Capt. Sherwill.
c. young, (white barred.)	Rangoon.	Dr. Fayrer.

Labelled "*pictus*" by Mr. Carlyle, but has only 15 rows of scales; the type of "*pictus*" having 23, (vide page 51.)

d. two young.	Goalpara.	Dr. Thornburn.

c. adult.

P. constrictor.

a.	South Carolina.	Rev. T. Fitzgerald.

XENELAPHIS, Günther.

X. hexahonotus, Cantor.

a. half grown.

ZAMENIS, Wagler.

Z. ventrimaculatus, Gray.

Coluber diadema, Blyth.

a. adult.	?	?
* Z. diadema, Schl.	Sind, Bombay.	
* Z. gracilis, Günth.	Sind, Dakhan.	

Z. fasciolatus, Shaw.

a. adult.	Ramri.	Purchased.
b. ditto.		
c. young.	South India.	P. Jerdon.

This specimen was labelled, "*Coryphodon pictus*," but it is certainly *Z. fasciolatus*. The 5th upper labial has its ascending ramus detached to form a supernumerary postocular, three in all, but the large frontals, very broad, vertical anteriorly, and 21 rows of smooth scales sufficiently indicate the species.

d. adult.

In our adult specimens *a.* and *b.*, the 3rd upper labial is undivided, and therefore just enters the orbit with its posterior angle. In the young, the anteocular touches the vertical as described by Günther, but does not quite reach it in either of the adult specimens *a. b.* and *d.*

ZAOCYS, Cope.

Z. carinatus, Günth.

a. skin and tail of adult. Darjiling. Major Sherwill.

b. several ditto. S. E. Himalaya.

HERPETOREAS, Günther.

H. Sieboldi, Günth. Sikim.

Scales in nineteen rows, feebly keeled on the back. Anal and subcaudals bifid. Rostral broader than high, convex just reaches the surface of head. Anterior frontals sub-pentagonal, broadest behind, rather more than half as large as the posterior frontals, which are bent down at the side. Vertical, superciliaries and occipitals normal, proportionate. Nostril between two largish nasals. Loreal small, smaller than nasal. Anteoculars two, the upper large, but does not touch vertical. The lower small, wedged in between the third and fourth labials; looks like a detached piece of the third labial. Postoculars two, small, the lowest in contact with two temporals. Upper labials eight, the fourth and fifth enter the orbit.

Chin shields two pair, contiguous, touching six lower labials. First lower labials form a suture, second very small, sixth largest.

Eye large, pupil round, ventrals strongly upturned at the sides, the upturned ends being dark coloured. Colour above olive brown. A black band down each side of spine from neck to tail, with an interspace of five scales between. A second narrower band two scales below the last. Belly dusky, throat yellow.

A black streak from eye to gape.

This description is taken from a specimen in the possession of Mr. Grote.

One specimen exists in the museum, as far as I can judge, without extracting it from the bottle. It differs from the above and agrees with the type in having only one anteocular; but as in the above specimen the eye is on the 4th and 5th upper labials, whereas the type has three upper labials entering the orbit, this is probably an individual peculiarity.

a. adult. No record.

TROPIDONOTUS, Kuhl.

T. quincunciatus, Schl.

T. umbratus, Schl.

a. three specimens. Bengal, Pinang, Rangoon.

b. adult & 2 young. Bengal.

c. Upper Pegu. W. T. Blanford, Esq.

d.	Upper Pegu.	W. T. Blanford, Esq.
e.	Andamans.	Col. Tytler.
f.	Sunderbuns.	A. C. L. Carlyle, Esq.

g. ? style of marking of this species, but can't be removed from the bottle, neither is any note attached.

T. STRIOLATUS, Blyth. Andamans. Lt.-Col. Tytler.

Scales in nineteen rows.

Anteocular one, postoculars three or four. Upper labials eight. Third and fourth enter orbit, when four postoculars are present only the third enters the orbit; anal divided. Colour pale olive brown. A dark patch below the eye, a conspicuous dark leaden stripe from behind, the eye over the angle of the mouth all down the side, with a second narrower one below it. The lower stripe passes through the upper edges of the second row of scales. Beneath white. No ventral dots. The ventral row of scales white with brown tips.

Body 22.5, tail 12 = 34.5.

T. SUBMINIATUS, Reinw.

a. several specimens.	Rungpore.	Mr. Bonneau.
	Ramri.	Capt. Abbot.
	Pegu.	Capt. Berdmore.
b. several specimens.	Assam.	T. Robinson, Esq.
c. (?) large specimen, no markings.	No record.	

T. STOLATUS, L.

a. three specimens.	Calcutta (?)	(?)
b. two ditto.	Ceylon.	Dr. Kelaart.
c.	Calcutta.	T. Moseley, Esq.
d.	Near Calcutta.	A. C. L. Carlyle, Esq.

T. NIGROCINCTUS, Blyth.

a. many specimens.	Pegu.	Major Berdmore.

T. PLATYCEPS, Blyth. J. A. S. XXIII. p. 297.

a. two specimens.	Darjiling.	Capt. W. T. Sherwill.

The Assam and Khasia specimens (l. c.) are no longer in the museum. This is a very aberrant species, with rounded frontals and almost smooth scales. It might advantageously in my opinion be separated, but I follow Dr. Gunther in retaining it in the genus, as I have no good specimens to diagnose.

T. ANGUSTICEPS, Blyth. J. A. S. XXIII. p. 295.

a. adult and young.	Ramri.	Capt. Abbot.

T. MACROPS, Blyth. J. A. S. XXIII. p. 296.

a. two specimens.	Darjiling.	Capt. Sherwill.

T. PLUMBICOLOR, Cantor.

Xenodon viridis, Dum. et. Bib.

a. young. Bundelkand. Dr. Spilsbury.

T. FASCIATUS, L. N. Carolina. Rev. J. Fitzgerald.

T. ORDINATUS, L. Ditto. Ditto.

T. NATRIX, L.

a. England. R. Hancock, Esq.

b. Ditto. E. Blyth, Esq.

T. OLIVACEUS, Blyth.

a. two specimens. ? ?

T. DIPSAS, Blyth.

a. specimen in very poor state. Darjiling. W. T. Blanford, Esq.

The type specimen of Blyth's description is no longer in the museum.

T. ?

a. specimen in too poor a state for description. Darjiling. W. T. Blanford, Esq.

T. MACROPHTHALMUS, Günth. Khasi hills.

T. HIMALAYANUS, Günth. Nipal, Sikim.

T. MONTICOLA, Jerdon, Wynaud.

T. CEYLONENSIS, Günth. Ceylon.

T. BEDDOMII, Günth. Nilghiri hills.

T. ZEBRINUS, Blyth. Mergui.

J. A. S. XXIII. p. 295.

Type specimen presented by Major Berdmore, no longer in the museum.

T. HYDRUS, Pall.

a. ? ?

I have no doubt of this identification.

Scales 19 rows. Eight upper labials, only the fourth entering the orbit. Superciliary very large. Anteoculars three, postoculars five. It is particularly annoying that the label of this specimen is torn off. It is recorded with doubt as from India by Gunther in his Brit. Mus. Catalogue, page 63, but excluded from his Catalogue of Indian reptiles. The fragment of a label remaining, seems to show it was presented by a clergyman, "Rev." remaining; probably the Rev. Cave Brown or the Rev. Lindstedt, in which case it is probably an Asiatic specimen. As it is not an American species, it is unlikely to be our American contributor Rev. F. Fitzgerald.

T. Mortoni, Theobald.

Scales strongly keeled, in nineteen rows.

Anteoculars two, the lowest most minute, looks like a fragment detached from the second labial. Postoculars three small, equal; on one side all united into a narrow band, half as broad but almost equal in length to the superciliary. Anterior frontals squarish, truncate in front, posterior frontals broader than long. Loreal small, Anal bifid.

Upper labials seven, third and fourth enter the orbit. Two pair large chin shields. The hinder ones rather larger and longer. Colour (bleached) pale brown with a darker vertebral stripe. On the side of body, obsolete rows of white (yellow) splash-like or linguiform spots, those bordering the vertebral stripe being conspicuous and cateniform, and occupying the upper basal portion of the scale. A few dark spots subordinately intermingled, but which form a sort of cateniform line each side of the spine. Belly yellowish. No marks on the head.

a. type.

Labelled "*Homolopsis*" by Mr. Carlyle, but no note of donor or locality.

This species seems to approach nearest to *T. tigrinus*, but the coloration is entirely different.

I have much pleasure in naming it after Dr. Morton, Civil Surgeon of Port Blair, who has most obligingly forwarded me, on more than one occasion, interesting collections from Port Blair and the neighbourhood.

ATRETIUM, Cope.

A. Schistosum, Daud.

a. many specimens. Lower Bengal.

b. Ditto. A. C. L. Carlyle, Esq.

XENOCHROPHIS, Günther.

X. cerasogaster, Cantor.

a. Lower Bengal. ?

FOWLEA, Theobald.

A. Tropidonotus, with smooth scales and the aspect of *Hypsirhina*.

F. Peguensis, Theobald.

Head as in *Tropidonotus*. Upper labials nine. The fourth and fifth enter the orbit. Anteocular one, Postoculars three, Loreal one squarish, Nasals two, Frontals two pair, anterior ones small and pointed. Vertical moderate, Superciliaries and Occipitals large. Anal bifid.

Scales smooth, lozenge-shaped, on neck in seventeen, on body in fifteen rows.

Colour of male dark umber brown, beneath white; colours distinctly separated, upper labials white.

Females, yellowish brown, mottled largely with yellow, which colour sometimes predominates.

a. adult male, (type.) Rangoon. W. Theobald, Junr., Esq.

Captured by E. Fowle, Esq., who is one of the very few who have liberally aided me in the study of our Indian reptiles.

CADMUS, Theobald.

Head thick, cuneiform. Form stout, but otherwise much like *Tropidonotus*. Scales smooth, in 27 rows. Anal bifid, eye moderate, pupil round.

C. cuneiformis, Theobald.

Rostral large, running well back on the top of the head and encroaching between the anterior frontals. Nostril between two nasals. Anterior frontals very small. Posterior frontals large. Loreal small, triangular, with apex between anteocular and posterior frontal. Anteocular one large, postocular three, upper labial seven, only the fourth entering the orbit.

Head high shelving in front, pointed, stout and cuneiform. A large pair of chin-shields in contact with 5 labials and followed by a small pair.

Colour yellowish olive brown. An obsolete band of spots, down the back on each side of spine, and lower on the side a strongly defined band of black spots, many of them like a hollow horseshoe four scales apart. Below dusky white, with an elongate streaky spot at the side *between* each 4th and 5th ventral.

a. type. Simla. Purchased.

This very curious snake partakes of the characters of *Tropidonotus* and *Hypsirhina* even more than *Pegua* does.

TOMODON, Dumeril et Bibron.

T. strigatus, Dum. et Bib.

a. specimen injured. Calcutta. Mr. C. Swaries.

This specimen is so crushed that I cannot make out its head shields, but it appears to be identical with a single specimen obtained by myself in Birma. It is not included in Günther's Indian Reptiles, but is recorded from India in the Brit. Mus. Cat. Colubrine Snakes, p. 52.

Perhaps *Hypsirhina plumbea*.

FAMILY PSAMMOPHIDÆ.

PSAMMOPHIS, Boie.

P. SIBILANS, L.

a.	Somali country.	Lt. Speke.

P. condanarus, Merrem.

PSAMMODYNASTES, Günther.

P. PULVERULENTUS, Boie.

Dipsas ferruginea, Cantor.

a. five adults.		
b. two adults.	Assam.	Robinson, Esq.
c. many specimens.	Birma.	
d.		

FAMILY DENDROPHIDÆ.

GONYOSOMA, Wagler.

G. OXYCEPHALUM, Boie.

Herpetodryas prasinus, Blyth.

a. five adults.	Andamans.	Capt. Hodge.
b. ditto.	Mergui.	W. Theobald, Jr., Esq.
c. ditto.	Pegu.	Major Berdmore.
d. smaller.	Assam.	Robinson, Esq.
e. young.	Andamans.	Lt.-Col. Tytler.

G. gramineum, Günth., Khasi hills.

G. frænatum, Gray. Ditto.

DENDROPHIS, Boie.

D. PICTUS, Gmel.

a. adult.	Ramri.	Capt. Abbot.
b. two ditto.	Andamans.	Capt. Hodge.
c. two ditto.	Mergui.	Major Berdmore.
d. two ditto.	Assam.	Major Jenkins.
e. three ditto.	Malacca.	Rev. E. Lindstedt.
f. two ditto.	Andamans.	Col. Tytler.
g. large adult.	Calcutta.	E. Blyth, Esq.

CHRYSOPELEA, Boie.

C. ornata, Shaw.

a. four specimens.

b. two ditto. Malacca Rev. E. Lindstedt.

c. three ditto.

d. Fine adult. Shuegheen. Major Berdmore.

This specimen was captured devouring a Ptychozoon.

e. young, black banded.

FAMILY DRYIOPHIDÆ.

TROPIDOCOCCYX, Günther.

T. Perroteti, Dum. et Bib.

Leptophis Canariensis, Jerdon. J. As. Soc. Bengal, XXII. p. 550.

a. adult. Ootakamund. W. Theobald, Jr., Esq.

TRAGOPS, Wagler.

T. prasinus, Reinw.

a. adult. Pinang. Brigr. Frith.

b. ditto. Mergui. Capt. Berdmore.

c. ditto. Sylhet. F. Skipwith, Esq.

T. dispar, Günth. Anamallies.

T. fronticinctus, Günth. Pegu. (Captured there by me.)

PASSERITA, Gray.

P. mycterizans, L.

a. adult. Lower Bengal.

b. ditto, bad state; has swallowed a Calotes versicolor. Calcutta.

c. ditto.

FAMILY DIPSADIDÆ.

DIPSAS, (Auct.)

D. cynodon, Cuv.

a. adult.	Malacca.	E. Lindstedt, Esq.
b. ditto.	Mergui.	W. Theobald, Jr., Esq.
c. ditto.	Thaiel tmio.	W. T. Blanford, Esq.

D. trigonata, Schn.

a.		
b.	Subathoo.	Rev. Cave Brown.
c.	Jessore.	Frith, Esq.
d.		

D. Forsteni, Dum. et Bib.

a. Huge adult. Bengal.

Labelled, "*D. trigonata*, Lower Bengal" but no other record of this scarce species. Beddom has got it on the Anamallies.

b. adult (bleached), no record.

D. nigromarginata, Blyth.

D. bubalina, Klein?

I am not convinced of the identity of these two species, which Günther unites. I can see no "apical grooves" to the scales in our specimen, and the loreal is not higher than long as on *D. bubalina*, The coloration of the under parts too is different.

D. multimaculata, Schl.

a. adult.	Hongkong.	G. Bowring, Esq.
b. two ditto.		

Many specimens of this snake from Birma, where it is common, seem to have disappeared from the museum.

D. multifasciata, Blyth.

a. young.	Subathoo.	Rev. Cave Brown.

Perhaps a young, *D. trigonata.*

D. hexagonotus, Blyth.

a. many young.	Andamans.	Capt. Hodge and Col. Tytler.

The type specimen is no longer in the museum, and these young specimens are unsatisfactory data for specific identification.

D. BOOPS, Günth. Bengal, Borneo.
D. dendrophila, Reinw. Pinang.
D. bubalina, Klein.
D. Gokool, Gray. Bengal, Pinang.
D. Ceylonensis, Günth. Ceylon.

The island representative of *D. trigonata.*

FAMILY LYCODONTIDÆ.

LYCODON, BOIE.

L. AULICUS, L.

a. four specimens.	Calcutta.	E. Blyth, Esq.
b. three ditto young.	Andamans.	Capt. Hodge and Col. Tytler.
c. five ditto.	Pegu.	Major Berdmore.
d. adult.	Moulmein.	Rev. F. Mason.
e. two.		
f. young.	South India.	Dr. Jerdon.
g. ditto.	Ceylon.	Dr. Kelaart.
h. adult, from the	Andamans.	Lt.-Col. Tytler.
i. white barred var.		

L. striatus, Shaw. Anamallies.

L. Anamallensis, Günth. Anamallies.

TETRAGONOSOMA, GÜNTHER.

T. EFFRENE, Cantor. Pinang.

LEPTORHYTAON, GÜNTHER.

L. JARA, Shaw.
a. many specimens. "India generally."

OPHITES, WAGLER.

O. SUBCINCTUS, Boie. Pinang.
No anteocular.

O. albofuscus, Dum. et Bib. Malabar? Sumatra.
One anteocular.

CERCASPIS, Wagler.

C. carinata, Kuhl. Ceylon.

FAMILY AMBLYCEPHALIDÆ.

AMBLYCEPHALUS, Kuhl. (sp.)

A. Boa, Kuhl? Pinang.

PAREAS, Wagler.

P. Berdmorei, Theobald.

Aplopeltura boa. Schl. apud Blyth. The adult.
Pareas macularius, Blyth. The young.

This is a very singular snake. The young is totally unlike the adult, and has been described by Blyth, and referred to another genus, and the adult erroneously referred to *Aplopeltura (Amblycephalus.)* The snake, however, is not *Amblycephalus*, as it has divided sub-caudals, but one loreal, and 15 rows of scales, and as it clearly tends to unite the two genera; is a distinct species, which, to prevent confusion of synonyms, I have given a fresh name to. It approaches *Amblycephalus* in the eye being separated from the upper labials, and in the form of the head which, however, is only characteristic of the adult.

Adult. Body strongly compressed, scales smooth, in fifteen rows or faintly keeled on the back. Head high quadrate, blunt, pug-nosed, Eye large, Pupil vertical. Rostral high, not reaching the surface of head, deeply excavated below. Nasal large single, high, with nostril pierced behind, upper labials 6 or 7, anterior ones high narrow. Eye surrounded beneath with 5, 6, or 7 small shields, excluding the labials from orbit. Loreal one, rather small. Frontals subequal, anterior smallest. Superciliaries large, as large as posterior frontal fully. Vertical and Occipitals normal, nearly equal in size. Lower Labials 8, very narrow, 3 pair large transverse gular shields. The 1st forms a suture with the 4 front labials. Anal entire, Sub-caudals divided.

In the young. (*Pareas macularius*, Blyth.) The shields of the head are rather irregular. The anterior frontals are very small. In one the vertical is an equilateral rhomboid from the straightening of the sides. The posterior Frontal enters the orbit in some. The Superciliary is large and enters a notch between the Vertical and Occipitals. Occipitals extremely large. Seventh upper labial very long. The labials and additional oculars and peculiar gular shields as in the adult. Anal entire; sub-caudals divided.

a. two adults. Tenasserim. Major Berdmore.

Color uniform ochraceous, with obsolete traces of vertical bands down the body. Two converging dark lines on the nape, and traces of a white collar in one specimen. Belly white.

Body 195, tail 4.5 = 24.0 inches.

b. three young.	Martaban.	Major Berdmore.

Body rich reddish brown, with somewhat reticulate bars formed by some of the scales being parti-colored, white in front, and deep claret color behind, giving a half banded, half spotted appearance to the snake. A conspicuous white collar on the nape, mottled with claret red. Belly brown, spotted and mottled.

P. MODESTUS, Theobald.

Head rather thick. Anterior frontals small, broader than long. Posterior frontals large, bent over the side and entering the orbit. Superciliaries small. Loreal moderate. Anteoculars two, very small. Postocular one, very small, with a band like sub-ocular, which excludes the labials from the orbit. Scales smooth, in fifteen rows. The vertebral series not enlarged, but the four vertebral rows faintly keeled. Anal entire; sub-caudals bifid. Upper Labials seven, 4th and 5th high, under the orbit, but separated by a sub-ocular, 6th low, 7th very long with two elongate temporals above it. Three pair of large transverse gular shields. Above, uniform brown, below pale yellowish.

a. type specimen.	Rangoon.	Col. Nuthall.

FAMILY XENOPELTIDÆ.

XENOPELTIS, REINWARDT.

X. UNICOLOR, Rein.

a. three specimens.	Pegu.	Major Berdmore.
b. two ditto.		India House.
c. one ditto.	Trichinopoli.	H. F. Blanford, Esq.
d. two ditto.	Andamans.	Col. Tytler.

A powerful and ferocious snake; when alive, its color above is a deep blue, with metallic iridescence.

FAMILY PYTHONIDÆ.

PYTHON, DAUDIN.

P. RETICULATUS, Schn.

a. young.	Nicobars.	Lt.-Col. Tytler.
b. ditto.		
c. ditto.	Mergui.	Major Berdmore.
d. ditto.		
e. ditto.	Malacca.	Rev. W. E. Lindstedt.
f. stuffed specimen.		
g. h. i. three do. poor state.		

P. MOLURUS, L.

a. young.

b. ditto smaller.
c. (?) stuffed.

BOA, Gray.

B. constrictor, L.

a.	E. Blyth, Esq.
b.	E. Blyth, Esq.

GONGYLOPHIS, Wagler.

G. conicus, Schneid.
a. four specimens. Upper India.

ERYX, Daudin.

E. Johnii, Russell.

a. three specimens.	Pind Dádun Khán.	W. Theobald, Jr. Esq.
b. young, pale colored with dark bands over the back.		

FAMILY ACROCHORDIDÆ.

ACROCHORDUS, Hornstedt.

A. Javanicus, Hornst. Pinang, &c.

CHERSYDRUS, Cuvier.

C. granulatus, Schneid.

a. adult.	Hidgilli.	H. L. Haughton, Esq.

FAMILY HOMALOPSIDÆ.

CERBERUS, Cuvier.

C. rhynchops, Schneid.

a. adult.	Andamans.	Lt.-Col. Tytler.
b. two smaller.	Ditto.	Capt. Hodge and Col. Tytler.
c. two ditto.	Lower Bengal.	
d. three ditto.	Ditto.	
e. large adult.	Ditto.	
f. smaller.	Ditto.	
g. ditto.	Moulmein.	Dr. F. Mason.

HOMALOPSIS, Sp. Kuhl.

H. BUCCATA, L.

Pythonella semizonata, Blyth.

a. type of Pythonella. Martaban. Major Berdmore.

Labelled in Mr. Blyth's writing *Pythonella*, not *Pythonia* as printed, and quoted by Günther.

HERPETON, Lacépede.

H. TENTACULATUM, Lacép.

TYTLERIA, Theobald.

Aspect of *Hypsirhina* scales, smooth, in seventeen rows. Nostral lateral, almost dividing a smallish oblong nasal: frontals two pair: three upper labials enter the orbit. Loreal elongate: anal and sub-caudals bifid: eye small; pupil vertical.

T. HYPSIRHINOIDES, Theobald.

Habit moderate, aspect of the Enhydrinæ. Head shield normal. Anterior frontals slightly pentagonal, half as large as posterior. Nasal a trifle less than loreal. Ante-ocular one, reaching to the vertical. Postoculars two, small. Vertical straight in front, sides rapidly converging behind. Superciliaries moderate, broad behind. Occipitals moderate. Upper labials nine, 3rd, 4th and 5th enter the orbit. Two pairs of chin shields touching one another. Sixth lower labial largest, touches the middle of second chin shield.

Color uniform reddish brown above. Belly yellowish white, length 21.00, tail injured 1.00 = 22.00 inches.

a. type specimen. Andamans. Lt.-Col. Tytler.

HYPSIRHINA, Wagler.

H. ENHYDRIS, Schneid..

a. Adult and young.

b. Young. Calcutta. Mr. C. Swaries.

A variable species as to form and coloration, and consequently much burdened with synonyms, being indebted to Dr. Gray for three of them, *bilineata*, *trilineata* and *furcata*, according to Günther. It is a common species, with scales in twenty rows.

H. PLUMBEA, Boie.

a. many specimens.

Nearly related to the last, but with a stouter head, and scales in only nineteen rows.

H. CHINENSIS, Gray.

a. small specimen.

FARANCIA, GRAY.

F. FASCIATA, Shaw.
a. fine adult. North Carolina. Rev. F. Fitzgerald.

ABASTOR, GRAY.

A. ERYTHROGRAMMUS, Wagler.
Homalopsis parsicips, Blyth.
a. fine adult. North Carolina. Rev. F. Fitzgerald.

FORDONIA, GRAY.

F. UNICOLOR, Gray. Pinang.

CANTORIA, GIRARD.

C. ELONGATA, Girard.

FERANIA, GRAY.

F. SIEBOLDII, Schl.
a. adult. Pegu. Major Berdmore.

HIPISTES, GRAY.

H. HYDRINUS, Cantor.
a. Rangoon. Dr. Fayrer.

GERARDA, GRAY.

G. BICOLOR, Gray, ... *Bassein river.*

SECOND SUB-ORDER, SERPENTES COLUBRINI VENENATI.

FAMILY HYDROPHIDÆ.

ENHYDRINA, GRAY.

E. BENGALENSIS, Gray.
Valakadyen, Gray.
Hydrus schistosus, Cantor.
a. adult, fœtal young. Sandheads.
b. adult, black spotted. Hidgelli. H. L. Haughton, Esq.
c. 4 adult, 1 young, 2 fœti.

HYDROPHIS, Daudin, (sp.)

H. Gracilis, Shaw.

a. adult.	Sandheads.	W. Earl, Esq.
b. younger.	Sandheads.	
c. very young.		

This specimen (*b.*) has 73 dark bands. On the neck these bands are confluent and constitute the general color; the pale yellow lines being broken up into oval spots on the sides. On the back the bands are rhombic, on a yellow ground. On the tail they are broad, with narrow upright bars of the yellow ground color between them.

H. Jerdonii, Gray.

Hydrus Cantorii, Jerdon, Mus. label.

Hydrus nigrocinctus, Cantor.

a. fine specimen.	Mergui.	W. Theobald, Esq., Jr.

H. nigrocincta, Daud.

a. young.

The black bands are more symmetrical than on the type, isolating the pale ground color into ellipsoid bands, which are wider than in the type, covering eight scales in the middle or broadest part. On one side of our specimen, there are two, on the other only one postocular.

H. curta, Shaw.

a. small specimen.

This does not quite agree with the description, as there are four cross bands, but the decided yellow temporal streak is a sufficient character to recognize the species by.

H. cyanocincta, Daud.

Hydrus striatus, Cantor.

a. adult.	China.	C. J. Bowring, Esq.
b. young.	Hidgilli.	H. L. Haughton, Esq.
c. very young.		

a. has the tail very round and thick, as Günther says is the case with old males.

The small specimen *c*, is remarkable for the narrowness of the bands which are narrower than the pale interspaces. It exhibits also the transverse frontal streak which becomes obsolete with age.

H. robusta, Fischer.

a. fine adult.	Hidgilli.	H. L. Haughton, Esq.

I think this must be a variety of *H. robusta*, though the scales are small, and I can find no central tubercle. Scales on neck in 27 rows.

Eye very small, over 3rd and 4th labials. Superciliaries very large. Six upper labials, 1st small, the rest large, subequal, regular.

Color greenish-olive above, yellow, below with narrow distant black cross bars, formed on the belly of only single black scales; chin shields two pairs, approximate: 4th and 5th lower labials large.

H. CORONATA, Günther.

H. obscura, Dumeril, Mus. label.

a. adult.	Hidgilli.	H. L. Haughton, Esq.

This specimen was labelled *H. obscura,* but accords minutely with Günther's description of *H. coronata.*

H. STRICTICOLLIS, Günther.

H. obscura, Daud. Mus. label.

a. adult.	Hidgilli.	H. L. Haughton, Esq.

A variety probably of this species, though not quite corresponding with Günther's description.

Scales on neck in 35 rows; on body in 45, with an indistinct central tubercular keel; one anteocular, one postocular: 3rd upper labial does not touch nasal; 3rd and 4th enter the orbit; one large anterior temporal, two small posterior ones, alongside of the occipital. Ventrals entire, broader than adjoining scales, very obscurely three-keeled. No enlarged præanals. Above blackish olive, below yellowish, faintly dark banded; markings blended and obscure.

H. CHLORIS, Daud.

H. gracilis, Shaw apud Blyth.

H. Lindsayi, Gray (?)

a.	Akyab.	— Dunn, Esq.
b.	Sandheads.	

These specimens accord very well with *H. chloris* as described by Günther, save that the rostral is quite as high as broad. In this single character, they resemble *H. Lindsayi,* Gray, which must, therefore be held to be very doubtfully distinct from the present species, the only other differences seeming to be insufficient for specific separation, such as coloration and the number of ventral shields, which *per se,* when weighed against the strict agreement of all the other characters, are comparatively unimportant.

H. GÜNTHERI, Theobald.

Scales on neck in 43 rows, on middle of body in 51, strongly keeled, subequal. Ventrals undivided, bi-tubercular: one ante-ocular, one postocular. Upper labials six; 2nd very large, 3rd and 4th enter the orbit; 6th low, wedged between two temporals. A large upper temporal in

contact with the postocular, the occipital, two lower temporals and three small temporal scales behind. Shields of head as a *Hydrophis*, pustular. Each labial smooth in front, pustular behind. A small pair of rounded chin shields separated by a groove.

Color yellow, with dark lozenge bars on the back, becoming obsolete on the sides. Belly uniformly yellow. Tail dark, with yellow stripes.

The specimen was jumbled among a lot of *Enhydrinæ*, probably from the Sandheads.

Its nearest ally is *H. Stokesii*, but it seems a new species, and I have, therefore, separated it under the name of the distinguished Herpetologist to whom Indian Naturalists are so deeply indebted for his labors, more especially in this confused Family.

H. TRACHYCEPS, Theobald.

Head conical, pointed or subtriangular, hardly longer than broad. Body moderate, throat not slender. One ante-ocular, one postocular: occipitals not broken up, entire. Six upper labials, the two last having two small plates below them; 1st upper labial very small; 2nd very large; 3rd enters the orbit with its posterior angle; 4th under the orbit with a lower supernumerary plate wedged in behind it, and above it and the 5th; 5th touches postocular; 6th just touches postocular, and joins the temporal. Two pairs of chin-plates approximate, irregularly rhomboidal. Five lower labials, with a row above of marginal scales. Ventrals small but distinct, smooth. Scales smooth on neck, in 32 rows. Color greenish yellow. Back barred with 63 dark lozenges combined in faint bars across the belly, on the anterior two-thirds of the body. Length 35 inches.

a. Female and fœtus. Mergui. W. Theobald, Jr.

This specimen was labelled *H. nigrocincta*, Daud. with which it has no affinity. Its thick neck, remarkably conic head and ventral plates distinguish it from any snake described by Günther.

"*Bay of Bengal*" is the only note attached to it, but I think I recognize it as one of many (and almost the only one remaining) presented by me from Mergui, where great numbers are daily captured in the fishing stakes.

H. VIPERINA, Schmidt.

a. young. Rangoon. Col. Nuthall.

This specimen is in a bad shrivelled state, and is but doubtfully referred to this species. The broad nasals posteriorly, broad anterior ventral and coloration seem to agree with the type.

PELAMIS, DAUDIN (sp.)

P. BICOLOR, Schneid.

a. fine adult. Nicobars. M. Busch.

(var γ *sinuata*.)

PLATURUS, LATREILLE.

P. SCUTATUS, Laur.

a. adult.	Ramri.	Capt. Abbott.
b. young.	Pinang.	Capt. Lewis.

P. FISCHERI, Jan. Bay of Bengal.

FAMILY ELAPIDÆ.

HAMADRYAS, CANTOR.

H. ELAPS, Schl.

H. vittatus, Elliott.

H. ophiophagus, Cantor.

a. fine adult, J. A.S. XXVIII. 411.	Port Blair	Lt.-Col. Tytler.
b. young.	Andamans.	Capt. Eales.

c. head of adult (same bottle as *b*).

NAJA, LAURENTI.

N. TRIPUDIANS, Merr.

N. lutescens, Laur.

N. atra, Cantor.

N. kaouthia, Less.

N. sputatrix, Rein.

N. larvata, Cantor.

a. adult no spectacles.	Probably from Pegu.
b. adult.	Probably from Pegu.

Head pale. Body above brown and black mottled. Belly black. Throat yellow (?) then a scale of 5 black scuta, followed by a band of 5 yellow ones. Two black gular spots just in front of head. No spectacles, but an oval black spot in the centre of a pale oval area. Fore part of body dark and pale banded. This fine specimen has suffered by being mercilessly rammed into too small a bottle.

c. adult (bleached.)

Neck finely displayed with large spectacles.

d. half grown from Pegu, I believe, from its oval mark.

e. half. Bengal probably. Spectacles distinct.

f. ditto two specimens, ditto.

g. ditto.

h. ditto 3 specimens, from Pegu probably.
A large central and two small lateral dark spots in a pale oval area.

i. ditto two specimens (bleached), from Pegu probably.
No spectacles, oval mark only with dark centre.

j. ditto swallowing a *Bufo melanostictus.*

k. ditto, 3 specimens from Pegu probably.

l. ditto Mergui. Major Berdmore.

m. ditto ditto. W. Theobald, Esq., Jr

n. young. Bengal (?)
Spectacles displayed.

o. ditto ditto.

p. ditto, 4 specimens, all from Pegu probably.

q. ditto two-headed monster. ..... Nawab of Dacca.

r. head of cobra distended; no spectacles or other mark.

Most of the specimens in the collection belong to the variety which occurs on the east side of the Bay, without spectacles, but with merely a pale black central oval mark on the neck. The ordinary spectacled variety I have never ousted in Pegu or Tenasserim.

The commonest color of the cobra is a uniform brown, rather dark, but I have seen many living ones in Bengal, almost pale yellow or yellowish stone color. From this pale tint, the color passes through the four varieties to uniform black. The pale varieties are called in Bengal "Gorhmoń," and the black is known by the name of "Kaouthia," with the epithet black often affixed. It is the largest and most dreaded variety, but I don't think its color is the result of age, as I have seen fully adult cobras of a pale yellowish color, though rarely. The Pegu variety is dark, with the oval mark very constant, and never exhibits any approach to the spectacles.

Dr. Günther remarks "Singularly, it has never been observed by Mr. Hodgson in the valley of Nepal." This is very easily accounted for, since few could venture to kill a cobra, even for scientific ends, in the rigorously Hindu Kote of Nepal. In British India, decent Hindoos will not kill a cobra; and if one has taken up his abode in a house, he is either permitted to remain, or else carefully inveigled into an earthen pot, which is then closed and carried off for miles, before it is opened and the sacred reptile within respectfully allowed to regain his liberty. I have myself witnessed this deferential deportation of the cobra in Bengal; but of course none but the orthodox Hindoo is so careful to abstain from injuring the animal, and their reverential feeling is now perhaps rather the exception than the rule, though probably as strong as ever in Nepal.

BUNGARUS, Daudin.

B. cæruleus, Schneid.

a. adult.	Calcutta.	Prince Jellalooddeen.
b. ditto.	Pegu.	
c. ditto.	Darjeeling.	Capt. Sherwill.
d. smaller.	.....	Lt. R. C. Beavan.
e. ditto (finely marked).	Rangoon.	Col. Nuthall.
f. two young (discolored).		
g. three specimens.		
h. young.	Cape of Good Hope ! !	Col. Tytler.

This habitat must, I think, be erroneously given.

B. fasciatus, Schneid.

a. adult.

b. ditto smaller.

c. ditto ditto.

d. ditto.

e. small specimen swallowing another snake. (*Tropidonotus*).

Not a single donor or locality is assigned to any of these specimens of *B. fasciatus*, whilst, oddly enough, nearly every specimen of *B. cæruleus* is carefully labelled.

B. Ceylonicus, Günth. Ceylon.

XENURELAPS, Günther.

X. bungaroides, Cantor. Cherrapunji.

MEGÆROPHIS, Gray.

M. flaviceps, Reinh.

a. adult injured.	Mergui.	W. Theobald, Esq., Jr.

ELAPS, Schneider.

E. MacLellandii, Rein.

E. personatus, *Blyth.*

a. adult.	Assam?	W. Robinson, Esq.
b. 3 younger.	Pegu (?)	Major Berdmore.

I cannot distinguish the Pegu and Assam specimens, as all are rammed into one bottle.

E. MELANURUS, Cantor.
E. maculiceps, Günth.

a. 3 specimens.	Rangoon.	Dr. Fayrer.
	Moulmein.	E. Blyth, Esq.
b. young (bleached.)	Amherst.	E. O. Reiey, Esq.

E. INTESTINALIS, Laur.

a. adult with young (bleached).	Singapore.	Brigadr. Frith.

E. HYGIÆ, Schl.

a.	South Africa.	Dr. Withecombe.

THIRD SUB-ORDER, SERPENTES VIPERINI.

FAMILY CROTALIDÆ.

TRIMERESURUS, LACÉPEDE (sp.).

T. CARINATUS, Gray.
T. porphyraceus, Blyth.
T. bicolor, Gray.
T. purpureus, Gray.
T. purpureo-maculatus, Gray.
T. puniceus, Gray.
T. Cantori, Blyth.

a. adult. Lower Bengal.

Ordinary type one azygos shield between the supranasals. Green with pale side stripe; 23 rows of scale.

b. adult. Andamans.

Fine and large. Scales of head not very strongly keeled. One azygos shield between the supranasals; scales in 23 rows; color brownish green, no side stripe or mottling.

c. smaller. Andamans. Lt.-Col. Tytler.

Like the last, but the brown color predominating, belly greenish white brown, blotched. (In bad state.)

d. adult like *b.* in bad state. Fang, 0.70 long.

e. two specimens. Lower Bengal.

The larger has 25 rows of scales.

f. 2 specimens like *c*.
only smaller. Andamans. Lt.-Col. Tytler.
g. small, adult. Nicobars.

This is the type of *T. Cantori*, Blyth.

It is in a very bad state but would seem to be like *b.* in coloration: throat is scarcely mottled greenish brown; belly unmottled. Scales in 27 rows.

It is no doubt also the *T. puniceus, purpureus* and *purpureo-maculatus* (!) of Dr. Gray.

All the above species and varieties seem connected by certain persistent characters. Supranasals separated by an azygos shield. Second upper labial margining the præorbital pit in front. Scales well keeled in 23 to 27 rows. Coloration in the genus is not of much value, as it is a variable character, especially after long immersion in spirits, yet it seems to have been much relied on, to judge by the epithets fastened on to the species by very eminent Naturalists.

T. GRAMINEUS, Shaw.

a. many specimens. Sylhet, Birma, Malacca.

On the authority of these assigned localities, I retain this as a distinct species, otherwise, were it confined to Bengal, I should hardly venture to do so. The second labial touches the præorbital pit in front, one azygos shield (sometimes divided) separates the supranasals. Scales of the body not strongly keeled, in from 19 to 21 rows. Form slender and tail longish, compared with *T. carinatus*, and scales much less keeled. Were the species more local, the feeble carination of the scales and slender form would only, I think, weigh sufficiently to constitute a race, but as the distribution seems almost co-extensive with the stouter *T. carinatus*, the above characters have greater weight and constitute a specific distinction. I myself have never remarked it in Pegu, where *T. carinatus* would seem to replace it to a great extent.

T. TRIGONOCEPHALUS, Merr.

a. fine adult. Colombo. Dr. Kelaart.

T. ERYTHRURUS, Cantor. (?)

Supranasals contiguous. Second upper labial forms front margin of præorbital pit. Scales keeled, in twenty-three rows. Supranasals contiguous.

a. small adult. No record.

This seems to be uniform brownish green without markings. It differs from the type in having 23 and not 21 rows of scales. It is very possibly a variety of *T. carinatus* with the azygos shield on the snout suppressed. Perhaps *T. anamallensis*, Günth.

T. ANDERSONI, Theobald.

Second upper labial forms the anterior margin of præorbital pit: supranasals separated by an azygos shield. Scales keeled, in 25 rows.

Color above and below uniform rich brown. Belly and sides conspicuously white spotted.

a. Type. No record.

I have designated this beautiful species after Dr. Anderson, our present hard working and zealous officiating Curator.

T. MONTICOLA, Günth.

Parias maculata, Gray.

Parias neligrensis, Jerdon apud Blyth.

a. adult and young. Darjeeling. W. T. Blanford, Esq.

Second upper labial forms part of præorbital pit. A very minute azygos scale between the supranasals. Scales faintly keeled in 23 rows. Superciliaries very large. Pale brown with a vertebral row of large, square, dark brown blotches. Along the sides a row of small, dark spots. Belly dark, mottled. A pale temple streak.

a. young. (var?) Back barred, alternate dark and light brown: scales in 25 rows. No record.

T. STRIGOLUS, Gray.

T. Neelgherriensis, Jerdon J. A. S. XXII. 524.

Parias maculata, Gray apud Blyth, Mus. label.

a. young. Nilghirris. W. Theobald, Esq., Jr.

The shield before the præorbital pit is divided from the second upper labial. Two scale-like supranasals in contact. On each side a smaller scale, and behind two large scales, separated by an azygos scale, the same size as a supernasal. Scales well keeled in 21 rows.

Color brown with a line of darker vertebral spots, with smaller ones below. Many scuta dark tipped.

This is a common species about Ootakamund.

T. WAGLERI, Schl.

Tr. maculatus, Gray.

Tr. formosus, Gray, not Müll. and Schl.

Trig Sumatranus, Cantor.

Tr. subannulatus, Gray.

Tropidolæmus, Schlegeli, Bleeker.

a. fine adult. Singapore. Brigadr. Frith.

Scale before præorbital pit separated from second upper labial. Scales strongly keeled in 23 to 25 rows. Scales of head very strongly keeled, very imbricate. Supranasals contiguous, ridged, over-impending. Coloration and pattern handsome, vivid, variable, black, yellow and green banded and spotted.

T. OBSCURUS, Theobald.

a. young. No record.

Shield in front of the præorbital pit separated from the second upper labial. An azygos shield separates the supernasals. Scales keeled in

25 rows. Back uniform brown, sides green, spotted and mottled. Belly greenish white, brown barred and spotted; superciliaries well defined.

T. ANAMALLENSIS, Günth. Anamallies.

T. MUCROSQUAMATUS, Cantor. Assam.

PELTOPELOR, GÜNTHER.

P. MACROLEPIS, Beddome. Anamallies.

CALLOSELASMA, COPE.

C. RHODOSTOMA, Reinw. Siam.

HALYS, GRAY.

H. HIMALAYANUS, Günth. Garhwal.

H. Elliotti, Jerdon. Nilghirris.

HYPNALE, FITZINGER.

H. NEPA, Laur. Ceylon. Anamallies.

CENCHRIS, DAUDIN.

C. CONTORTRIX, L.

a. fine specimen. North Carolina. Rev. F. F. Fitzgerald.

This specimen is labelled "*contortrix*," but the scales of the head are keeled. It is pale brown with large squarish, dark brown blotches down each side, but not united along the vertebral line. Perhaps *C. piscivorus*.

b. fine adult. Do. (?) Do. (?)

This specimen, which is a large one, has the scales of the head keeled but not strongly, and those behind the eye large and smooth.

c. young.

b. and *c.* are both probably the variety named *C. atrofuscus*, Troost.

FAMILY VIPERIDÆ.

DABOIA, GRAY.

D. RUSSELLII, Shaw.

a. adult.

b. do.

c. do. (bleached).

d. do. (fine). Ceylon. Dr. Kelaart.

e. half grown.
f. do.
g. do.
h. young.
i. adult and young.

ECHIS, MERREM. (sp.)

E. CARINATA, Schneid.

a. large adult and two young.	Salt Range.	W. Theobald Junior, Esq,
b. young.	Upper India.	India House.

VIPERA.

V. AMMODYTES, Latr.

a. adult and young.	Europe.	Hungarian Museum.

Nose armed with a horn covered with scales.

PELIAS.

P. VERUS.

a. fine adult.		
b. smaller.	Chesshire.	E. Blyth, Esq.
c. several specimens.	England.	Messrs. Hancock and Strickland.
d. adult.	Norway.	
e. three specimens.	Europe.	Hungarian Museum.

SECOND SUB-CLASS: BATRACHIA.

ORDER BATRACHIA SALIENTIA.

A. AGLOSSA. I. Haplosiphona.
II. Diplosiphona.
(No Indian members.)

B. OPISTHOGLOSSA. I. OXYDACTYLA.

FAMILY RANIDÆ.

OXYGLOSSUS, TSCHUDI.

O. LIMA, Tsch.	Bengal.	Siam.

RANA, Auctorum.

R. TIGRINA, Daud.

R. brama, Less.

R. vittigera, Weigm.

R. rugulosa, Weigm.

a. adult male.	South India.	Dr. Jerdon.
b. adult female and young.	Calcutta.	
c. adult stuffed.		
d. young (?).	Ceylon.	Dr. Kelaart.

R. CRASSA, Jerdon.

a. adult and young.	Ceylon.	Dr. Kelaart.
b. ditto.	Ceylon.	Dr. Kelaart.
	South India.	Dr. Jerdon.

This species is closely affined to *R. tigrina*. It differs, however, in having a more obtuse snout and a conspicuously broader occiput. The supratympanitic ridge curves down much more sharply over the tympanum behind, than the same ridge in *R. tigrina*. The museum specimens are in a poor state, and those of the last species especially have been rammed so ruthlessly into their bottles that no force can dislodge them for close comparison.

R. FUSCA, Blyth.

a. fine adult.	Pegu.	Major Berdmore.
b. adult.	Pegu.	Major Berdmore.
c. several specimens.	Tenasserim	W. Theobald, Esq., Jnr.
d. tadpoles.	Pegu.	Major Berdmore.

This species attains to nearly the size of *R. tigrina*, but the colour is very uniform; where there are markings they are blurred and indistinct, quite different from the distinct maculation of *R. tigrina*. Rusty brown is the prevailing hue, with or without a pale median stripe.

R. BENGALENSIS, Gray (Blyth.)

a. many specimens.	India generally.	
b. ditto.	Ceylon.	Dr. Kelaart.
c. one ditto.	Pegu.	Major Berdmore.

Body covered with numerous small scattered warts, given to anastomose with one another. Toes webbed. Fingers free, long, subequal. Above greyish brown, mottled darker. Beneath white, throat reticulately marked. No canthus rostralis; nostril with a posterior papillary tubercle.

R. ESCULENTA, L.	France.	J. Malherbe, Esq.
a.		
b. large adult.	Europe.	Hungarian Museum.

R. TEMPORARIA, L. England. Hancock, Esq.

R. CUTIPORA, Dum. et Bib (Blyth.)

R. hexadactyla, Less.

a. adult. South India. Dr. Jerdon.

b. ditto and young. Ceylon. Dr. Kelaart.

R. VITTIGERA, Weigm.

R. assimilis, Blyth. Kelaart Prod. Faun. Zeyl.

R. agricola, Jerdon. J. A. S. XXII. 532

R. altilabris, Blyth. Ditto. XXIV. 220

a. many specimens. India. Birma.

b. ditto. Pegu. Major Berdmore.

c. young. Ceylon. Dr. Kelaart.

d. tadpoles.

R. KUHLII, Schl. Ceylon.

R. cyanophlyctis, Schneid. Ceylon.

R. Liebigi, Günth. Sikim.

R. gracilis, Weigm. Himalayas, Madras.

R. Malabarica, Jerdon, J. A. Malabar. S. XXII.

R. flavescens, Jerdon, Forests of the Peninsula.

R. curtipes, Jerdon, J. A. S. XXII. Forests of the Peninsula.

R. Nilagirica, Jerdon. J. A. S. XXII. Wynaad and Nilghiries.

There are no reptiles in India in such a confused state as the *Ranidæ*, and I can add but little towards disentangling the shadowy species, real enough perhaps, but not as yet characterised. The series in the Museum is a very poor one, and the *Ranidæ* from all parts of India must be assiduously collected, before sound results can be obtained. Let us hope that an urgent appeal for frogs from all quarters of India will be liberally responded to by local naturalists and collectors, without which aid the subject must long remain in its present unsatisfactory state. Each contributor should not send merely the most conspicuous frogs from his neighbourhood, but all the species and varieties he can procure.

R. PIPIENS, Harl.

a. tadpoles (?) North Carolina. Rev. F. Fitzgerald.

HOPLOBACTRACHUS, PETERS.

H. CEYLANICUS, Peters. Ceylon.

PYXICEPHALUS, TSCHUDI, (sp).

P. BREVICEPS, Schneid.

Sphærotheca strigata, Günth. Bat. Sal. 20.

Tomopterna strigata, Günth. Bat. Sal. 20. Pl. 2, fig. A.

Tomnopterna Delalandii, Tsch. Günth. Bat. Sal. 129.

P. fodiens, Jerdon, teste Günther sed ?

P. pluvialis, Jerdon, Cat. Tud. Rep. 411.

This species has undergone many vicissitudes at the hands of Dr. Günther, being at one time located in India then referred to the Cape, and finally recalled to its proper quarters in the East. On what grounds Dr. Günther so hastily ignored the testimony of Dr. Jerdon as to the Indian origin of the species, it is hard to say; the more so, as Dr. Jerdon had furnished many specimens from the Madras Presidency, where he was not only resident, but engaged in scientific pursuits, and his testimony therefore might, it would be supposed, have been allowed great weight in such a question. Dr. Günther tells us, (it is true) "that he found this species in the collection of Sir A. Smith," and adds, "it was evident that the specimens presented by Mr. Jerdon to the British Museum were not procured in the East Indies as indicated by that gentleman!" In other words, Dr. Jerdon, as an Indian naturalist, had no claims to be believed on a matter-of-fact coming within his personal, cognisance. When, however, preparing his Catalogue of Indian Reptiles, Dr. Günther seems to have discovered from the Brothers Schlagintweit that the Indian naturalist who collected the specimens was oddly enough right as to where they came from, and that the English savant, who merely received them and decided ex-cathedra, was wrong. The specimens are therefore re-transferred not only to the habitat, but also to the genus in which the Indian naturalist has placed them!! I may after this perhaps be allowed to be a little sceptical as to Dr. Günther's identification of *P. fodiens* and *P. pluvialis* of Dr. Jerdon. The Museum collection, unfortunately, is of little use. There is no specimen of *P. fodiens,* Jerdon, which agrees as far as can be judged with that gentleman's descriptions, "greenish marked with brown," but it no more resembles Dr. Günther's figure *(loc. cit.)* of *Sphærotheca strigata,* than it resembles any other figure in the book. I have, however, from Pegu, specimens closely resembling the figure, and I doubt not the true *P. pluvialis* of Dr. Jerdon. *P. fodiens* occurs too, I think, in Pegu, but never associated with the other, and much more rarely. It is, I believe with Dr. Jerdon, a totally distinct species, having a merely generic resemblance to the other, and both species I have procured alive.

a. adult (bad state). Ceylon. Dr. Kelaart.

P. FODIENS, Jerdon.

Above mottled brown, with a pale median stripe from occiput to vent. Below white.

P. RUFESCENS, Jerdon. Malabar Coast.

P. Frithi, Theobald.

a. adult. Jessore. —Frith, Esq.

Form much as in *P. fodiens,* tumid; skin quite smooth. Metatarsal spur distinct. Uniform vinous, red and brown above; white beneath. This specimen has been long preserved in spirit, but seems an undescribed species.

P. BREVICEPS.

P. lividus, Blyth.

a. no record. Old collection.

FAMILY DISCOGLOSSIDÆ.

MEGALOPHRYS, KUHL.

M. MONTANA, Kuhl. Ceylon.

M. GIGAS, Blyth. Sikim. Captain W. S. Sherwill, J. A. S. XXIII. p. 299.

I cannot find the type of Mr. Blyth's description in the Museum.

M. GUTTULATA, Blyth. Pegu. Major Berdmore. J. A. S. XXIV. p. 717.

The type specimens are no longer discoverable in the Museum.

The types of the two Batrachians affined to *Megalophrys* from Sikim, teste Blyth, J. A. S. XXIII. p. 300, are also undiscoverable in the Museum collections. It is tolerably clear that none of them belong to the genus, but what they are cannot now be ascertained.

XENOPHRYS, GÜNTHER.

X. MONTICOLA, Günth. Sikim.
Khasi Hills.

CACOPUS, GÜNTHER.

C. SYSTOMA, Schneid. Carnatic.

C. globulosus, Günth. Russelconda.

SECTION BUFONINA.

FAMILY RHINODERMATIDÆ.

DIPLOPELMA, GÜNTHER.

D. ORNATUM, Dum. et Bib.

a. four specimens Goalpara. Dr. Thornburn.

These specimens were labelled *Engystoma Malabaricum*, but though bleached seem to agree with Günther's description of *D. ornatum*.

b, five adult *Engystoma rubrum*. Ceylon. Dr. Kelaart.

D. PULCHRUM, Günth.

Engystoma.

a. four bleached specimens. Arakan. Col. Phayre.

Engystoma.

a. six specimens. Beerbhoom. W. Theobald, [Junior, Esq.

Engystoma Berdmorei, Blyth.

The type specimens are no longer in the Museum.

a. adult. Pegu. W. Theobald, [Junior, Esq.

FAMILY BUFONIDÆ.

BUFO, AUCTORUM.

B. MELANOSTICTUS, Schneid.

a. adult stuffed.

b. ditto in spirit.

c. ditto. Ceylon. Dr. Kelaart.

d. two adults and three young. Mergui. Major Berdmore.

B. KELAARTI, Günth. Ceylon.

B. ASPER, Schl. Mergui.

SCUTIGER, THEOBALD.

Aspect of Bufo. Maxillary and palatine teeth none; tympanum hidden; parotoids prominent. Fingers and toes free. In the male four callous plates across the sternum, and callous upper surfaces to the two inner fingers, and a trace of the same on the inner front edge of the third. Tongue parted behind, Eustachian tubes obsolete.

S. SIKKIMMENSIS, Blyth.

Bombinator Sikkimmensis, Blyth, J. A. S. XXIII. 300.

Back of male warty, with rows of large glandular tubercles with an apical pore interspersed. Limbs above covered with smaller glandular tubercles; parotoids ridge-like, running from the upper margin of orbit, and shelving down a little; snout blunt. Nostril lateral below a most indistinct canthus rostralis. Skin beneath smooth with four embedded callous plates like the plates of *Emyda* when dried. Plates roughened by numerous dark brown miliary tubercles with a perceptible linear and anastomising arrangement.

The female is smoother, less warty, and wants the sternal callosities so marked in the male.

a. male and female. Sikkim. Capt. Sherwill.

SECTION HYLINA.

FAMILY POLYPEDATIDÆ.

HYLORANA, Tschudi.

H. macrodactyla, Günth.

a. two specimens.

No record, but probably from Pegu.

These specimens have no median stripe, but I doubt not they are merely a variety of this species, as the coloration of *Hylorana* is very variable.

H. erythræa, Schl.

Limnodytes nigrovittatus, Blyth.

Limnodytes macularius, Blyth.

a. large female.	Mergui.	Major Berdmore.
b. three specimens.	Mergui.	W. Theobald, Esq., Jnr.

These specimens are all named *nigrovittatus*. The type of *macularius* is no longer in the Museum, but my own collection convinces me that both the size and colour of this species is very variable.

H. Tytleri, Theobald.

In size equal to *H. erythræa*, but with much more pointed snout, though not so narrow a muzzle as *H. macrodactyla*. Upper lip and beneath white. Back reddish brown. No pale lateral stripes.

a. type.	Dacca.	Lt.-Col. Tytler.

It is possible this may be a large adult *H. macrodactyla*, but the head is proportionably much broader across the occiput. More specimens are required to decide the point.

H. malabarica, Dum. et Bib.	Malabar.
H. temporalis, Günth.	Ceylon.

POLYPEDATES, Dumeril et Bibron.

P. leucomystax, Gravenh.

P. quadrilineatus, Wiegm.

a. many specimens.	Calcutta.	
b. adult.	Jessore.	— Frith, Esq.
c. three adults.	Silhet.	Skipwith, Esq.

d. two ditto.	Ceylon.	Dr. Kelaart.
e. many specimens.	Mergui.	Captain Berdmore and W. Theobald, Esq., Jr.
f. adult.	Chaibassa.	Captain Haughton.

P. CRUCIGER, Blyth.

P. leucomystax, Gravenh. in part apud Günther.

a. four adults.	Ceylon.	Dr. Kelaart.

This is I think a very distinct species from the last, which also accompanies it in Ceylon, though Günther unites them. Putting aside the peculiar pattern of the back, the head is conspicuously broader and blunter in this species than in *P. leucomystax*.

P. LIVIDUS, Blyth.

a. many specimens.	Tenasserim.	W. Theobald, Esq., Jr.

P. MARMORATUS.

a. adults young and tadpoles.	Pegu.	Major Berdmore.

A well marked species with completely webbed toes; very rugous pustular back; sternum smooth, belly pustular—Disks large.

P. MICROTYMPANUM, Günth. Ceylon.

P. PLEUROSTICTUS, Günth. *Madras Presidency.*

P. VARIABILIS, Jerdon. Nilgherries.

The two are probably the same species.

P. RETICULATUS, Günth. Ceylon.

P. EQUES, Günth. Ceylon.

P. AFGHANA, Günth. Afghanistan.

The habitat is remarkably doubtful.

P. SMARAGDINUS, Kelaart. Ceylon.

"Eye bones armed with spines. Limbs studded with tubercular sharp pointed spines."

A very peculiar species and probably a distinct generic form.

IXALUS, DUMÉRIL ET BIBRON.

I. VARIABILIS, Günth. Ceylon.

I. TEMPORALIS, Günth. Ceylon.

I. FEMORALIS, Günth. Ceylon.

I. LEUCORHINUS, Martens. Ceylon.

I. GLANDULOSA, Jerdon. South India.

No specimens of this Indian genus are in the museum.

RHACOPHORUS, Kuhl.

R. maximus, Günth.

R. Reinwardtii, Dum. et Bib.

a. adult and young. Naga hills. — Owen, Esq.

The locality "*Afghanistan*" recorded by Günther is very doubtful. The young differs much from the adult. In spirit the adult is grey, the young deep blue, and the arms and sides of hind limbs are fringed with a fold of skin which disappears in the adult. In the young too the tympanum is very indistinct.

FAMILY HYLIDÆ.

HYLA, Dumeril et Bibron.

H. carolinensis, Penn.

a. North Carolina. Rev. F. Fitzgerald.

H. ——————? North Carolina. Rev. F. Fitzgerald.

FAMILY HYLÆDACTYLIDÆ.

HYLÆDACTYLUS, Tschudi.

H. bivittatus, Cantor, J. A. S. XVI. 1064.

Callula pulchra, Gray (sp.)

a. adult. Pegu. W. Theobald, Esq., Jr.

ORDER BATRACHIA GRADIENTIA.

FAMILY SALAMANDRIDÆ.

SALAMANDRA, Laurenti.

S. maculosa, Laur.

a. adult. France. — Malherbe, Esq.

TRITON, Tschudi.

T. verrucosus, (!) *sic.*

a. many specimens. England. H. Strickland, Esq.

NOTOPHTHALMUS, Gray.

N. viridescens, Baird.

Triton millepunctata, Dekay.

a. North Carolina. Rev. F. Fitzgerald.

LOPHINUS, RAFINESQUE.

L. PUNCTATUS, Merr.
Lissotriton, Bell. (sp.)
a. many specimens. England. A. Hancock, Esq.
b. two ditto. Europe. Hungarian Museum.

FAMILY PLETHODONTIDÆ.

DESMOGNATHUS, BAIRD.

D. NIGER, Green.
a. North Carolina. Rev. F. Fitzgerald.

SPELERPES, RAFINESQUE.

S. SALMONEA, Storer (?)
a. North Carolina. Rev. F. Fitzgerald.

FAMILY PROTEIDÆ.

PROTEUS, SCHREIBER.

P. ANGUINUS, Laur.
a. adult. Carniola. Sir Humphry Davy.

Presented through Sir Edward Ryan, President, Asiatic Society of Bengal.

ORDER BATRACHIA APODA.

FAMILY CŒCILIIDÆ.

CŒCILIA, WAGLER.

C. OXYURA, Dum. et Bib. Malabar.

EPICRIUM, WAGLER.

E. GLUTINOSUM, L.
a. two adults. Ceylon. Dr. Kelaart.

Fine specimens with the pale lateral band well marked.
I have noted this species in the Nilghiris and in Pegu, but it is very scarce.

E. MONOCHROUM, Bleeker.
a. Pegu. Major Berdmore.

A rare species without the lateral stripe.

Catalogue of mounted skeleton of Reptiles in the Asiatic Society's Museum.

CATAPHRACTA.

TESTUDO. Two skeletons, in poor state, probably *T. radiata.*

MAUSURIA, EMYS.

The debris of the specimen formerly exhibited as a stuffed animal, but now only in fragments. Head, legs, &c. &c. missing.
BATAGUR THURGI, 24 inches.
PANGOHURA TECTURA, adult and young.
TRIONYX GANGETICUS.
CRANA, CHELONIA, CARETTA. Many heads imperfect.
Many heads of *Crana* and *Chelonia.*

EMYDOSAURIA.

CROCODILUS PALUSTRIS. Fine skeleton of catalogue (ante).
Young 8.60×20.90, 28.20=5770 Dr. Pearson (?)
C. POROSUS, Skeleton of young, from Barrackpore.
7.10 15.60 26.50=49.20. Presented by T. H. Pritchard, Esq.

SQUAMATA (SAURIA).

HYDROSAURUS SALVATOR 54.5 inches 86 candal vertebra.
Do. do. 39.5 do. 86 do.
TILIQUA RUFESCENS.
SITANA PONTICERIANA.
GECKO VERUS.
LYRIOCEPHALUS SCUTATUS.
SECOLOPIS REEVESI.
UROMASTIX HARDWICKII.
CHAMŒLEO VULGARIS.

OPHIDIA.

NAJA.
NAJA, head and neck.
PYTHON.

BATRACHIA.

RANA TIGRINA.
BUFO MELANOSTICTUS.

APPENDIX.

A few words will not here be out of place on the important question of collecting and preserving Reptiles. Two things should be borne in mind. *Firstly*, to collect every species procurable in the neighbourhood, how common soever some may seem; and, *secondly*, to collect systematically and not in a desultory fashion as is too frequently the case.

Many persons may think that common species are of little value, but this is a great mistake, as *well preserved specimens* of our commonest reptiles would be acceptable even in our Calcutta Museum, and equally so in the numerous Museums in Europe and America, whose name is legion. It is hardly possible, therefore, to collect too many specimens of anything, if only they are well preserved. Inattention to a few points, I shall now advert to, is the cause of so many of our Museum specimens, being in poor condition, *dissolved*, *pulpy*, *value-less*, and a fault of an opposite character is observable in others, which are shrunken and look much like dried sprats. This arises from the specimens having been dried from the evaporation of the spirits, owing to faulty stoppers.

Not 10 per cent. of the bottles in the Museum are air-tight, and a constant evaporation of spirit consequently goes on. The spirits are replenished from time to time to the great injury of the specimen. If this process of refilling is delayed, and the specimen dries completely and enters into the dried-sprat phase of its existence, no subsequent cunning will avail to restore the shrunken outlines, and the specimen is permanently spoiled. The simple expedient of ceiling the stoppers with wax never seems to have suggested itself to the minds of either Council, Curators, or Taxidermists, hence all this ruin; hence these tears.

Any one commencing to collect systematically should provide himself with a number of glass or stone-ware bottles of two sizes. The large size should be of not less than four inches in diameter; currant bottles, for instance, well stoppered. In such jars snakes up to five feet in length may be stowed. Larger snakes, young crocodiles, turtles, &c., may be accommodated in large stone jars, specially provided for them. The second size bottles may be about the size of common lozenge bottles, but the great thing is always to proportion the bottle to the specimen and vice versâ. Some persons seem to think that the specimens are never to come out again.

Another thing to bear in mind is, that when once the muscles are set, no re-arrangement of the coil is possible. The specimen must be ar-

ranged in a bottle such as it is destined permanently to occupy, and with some attention *to its comfort* as it were, or, as Isaac Walton expresses it of the worm, "*as though you loved it.*" The spirits used should be from 20 to 40 over proof (weaker spirits are not to be depended on in this climate,) and for scientific purposes, such spirits can always be procured from the distiller free of duty (say about Rs. 2-4 a gallon).

First catch your snake. This is easily done by pinning him down with a walking stick, and then seizing the nape of the neck. The snake being then secured, either divide the vertebra of the neck with a pair of nail scissors, or make a slit in the cardiac region, and pluck out the heart with the finger and thumb. I prefer the latter plan. In about 20 minutes the snake will be nearly or quite dead, and should then be slit up, and the viscera extracted. If all muscular contractility has subsided, coil it, head down and belly up, in a proper bottle, and fill up with spirits, hoisting the bottle, so as to eliminate all air bubbles. If the stimulus of the spirits causes the snake to coil irregularly, take it out again and recoil it, as it is of importance that it should set in a proper shape. After 24 hours either pour off the spirits and add fresh, or else transfer to a fresh bottle. It is imperative with large or moderate specimens, if they are to keep well, that both the abdomen be opened and the spirits changed once. The first used spirits will do several times, as they merely seem to absorb and remove the aqueous and other impurities of the freshly killed specimen. Small snakes, frogs, and lizards may be simply opened without removing the viscera. The bottles should be packed in a box with compartments filled with paddy husk, and the corks or glass stoppers well ceiled down with several coatings of wax and oil in the proportion of three to one.

Before bottling up, a note should be made of the length, size, and coloration of the specimen, with such other detail as the specimen may suggest. The viscera should be examined for ENTOZOA.

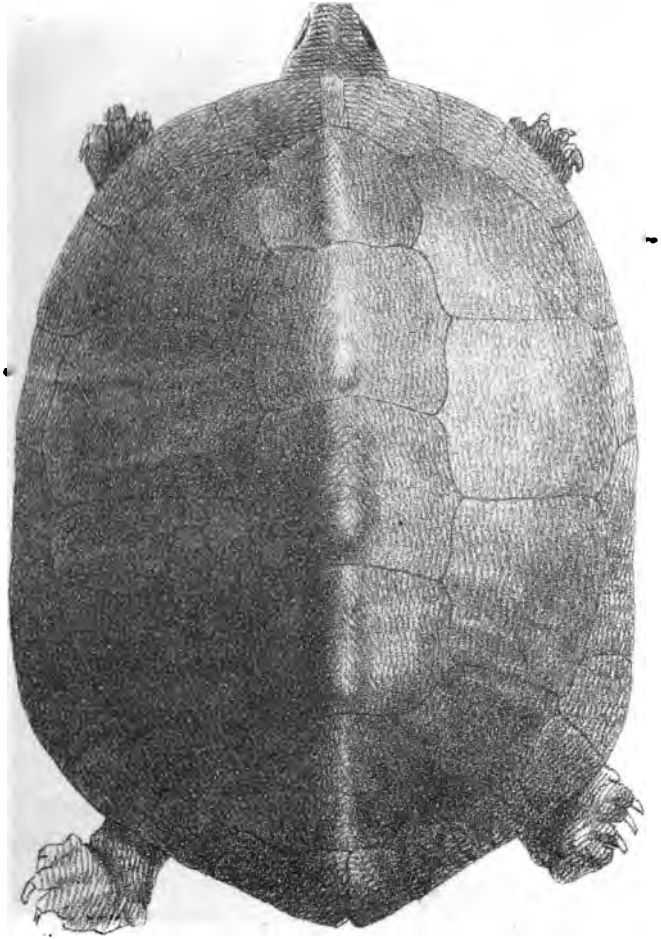
Young turtles should be preserved in spirit, previously making a slit in front and behind to ensure the free penetration of the spirits. As a matter of humanity, they should be killed before placing in spirits by dividing the nape with nail scissors. They will, of course, retract their heads at the sight of the scissors; but if the scissors partly open are firmly forced down along the top of the head, they will enclose the neck near its junction with the upper shell, and severance is then easily effected. Large turtle may be treated in the same manner, only the strongest tin plate cutters are requisite. It requires care too, approaching in front a large *Trionyx*, as it has a most powerful and remorseless bite. The plan that I adopted with a large *Trionyx* which I once got at Bhagulpoor, was to make a slit behind the thigh and, thrusting in one arm, seize and tear out the heart. It is a ticklish job, however, to hold the animal securely, as he evinces great displeasure and wrath at having his privacy thus trespassed on! Anything, however, is better than the plan which I once heard of being resorted to, of boiling the animals alive. The best

plan, however, is patiently to watch with a noose and catch the animal's head when protruded. If cleverly done, the head can be now pulled out, and the creature decapitated with a chopper.

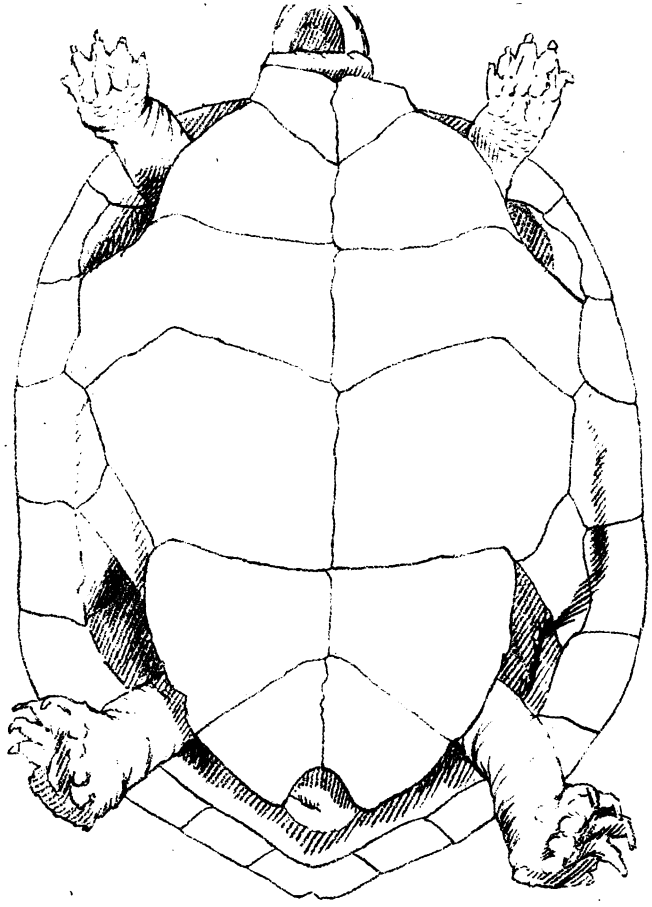
The shell should be well cleaned of flesh, anointed with arsenical soap and dried in a shady place. The head, feet, and viscera of a fair specimen should be preserved in spirit. The coloration should be noted during life, and an endeavour made to ascertain the limits of growth to which each species attains.

Young crocodiles should be preserved in spirit after opening the abdomen. The heads of larger ones may be simply dried, and the skeletons of large ones also. All that is requisite is to roughly clean the larger bones of flesh, and then hang them up in the sun to dry, first of all brushing them over with arsenical soap, to preserve the ligamental attachments. The head and legs may be separated, and the spinal column divided in several places for convenience of packing. Note the dimension and sex of specimen, and also the arrangement of the scutes on the neck, which is a specific character. The skin may easily be preserved flat, if brushed over with arsenical soap inside. For stuffing, specimens 8 or 10 feet in length will be found most convenient. Search the viscera for ENTOZOA. If, as is often the case, these parasites are attached, they should not be pulled off, but the piece of skin cut out, to which the animal is affixed.

The best work for the student is unquestionally Günther's Catalogue of the Reptiles of British India,—after this, the British Museum Catalogues—especially that of "Lizards" and Günther's "Colubrine Snakes." The Journal of the Asiatic Society may be ransacked with advantage, and much interesting information gained from the papers of Cantor, Blyth, and Jerdon. Enough has, I trust, now been said to induce some naturalists to enter the tempting field of Herpetology, and to convince the most sceptical or listless of the great aid to science that almost any one in this country might afford, by a little well directed energy, perseverance and zeal.



BERDMOREii BLYTH



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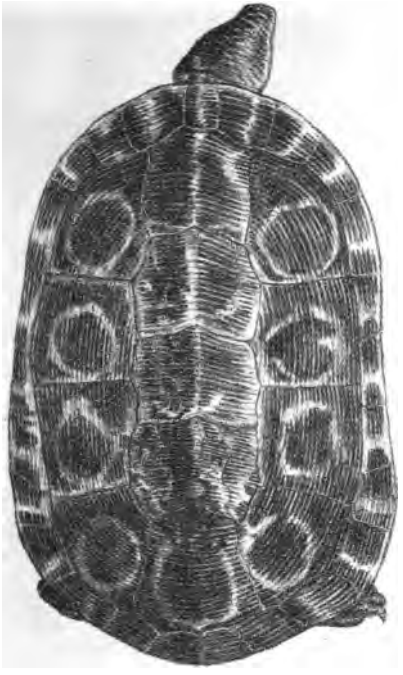

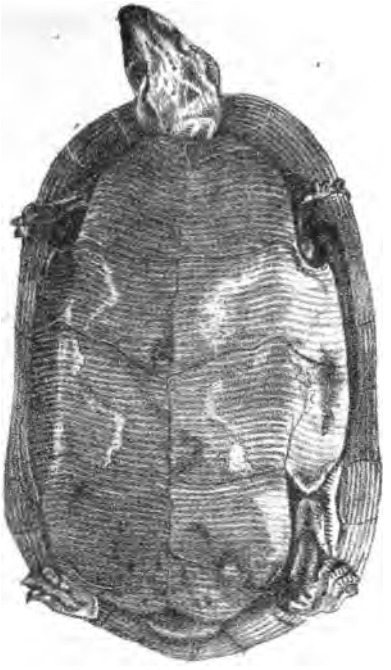

BATAGUR OCELLATA, D. & B.

BACK

BELLY.

Nº 28. P. 13.

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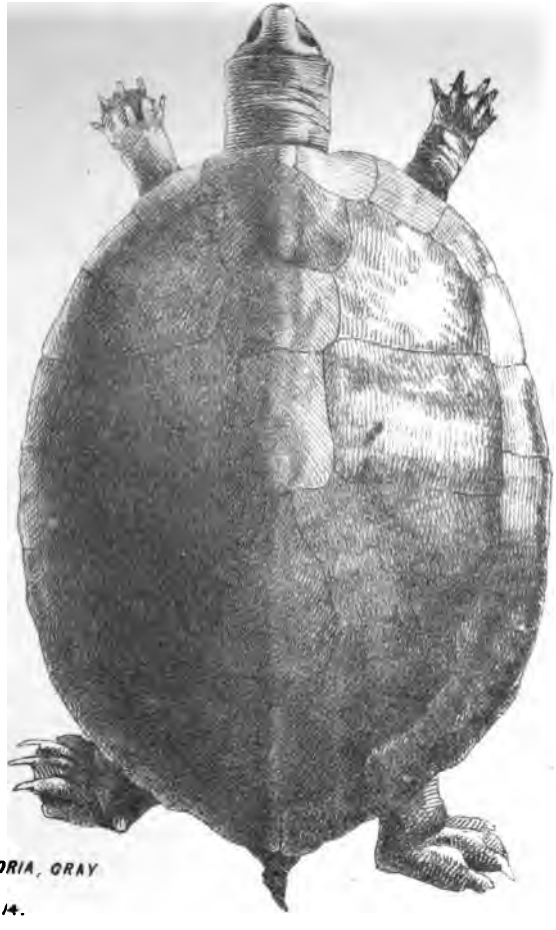
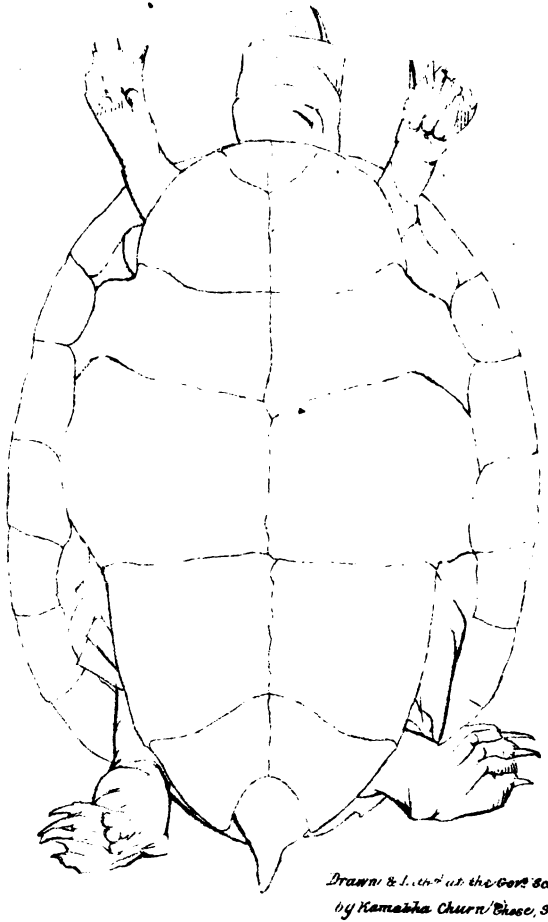
by Kamakha Churn Ghose Student.



…OSHURA TENTORIA, GRAY

N° 26. P. 13.14.



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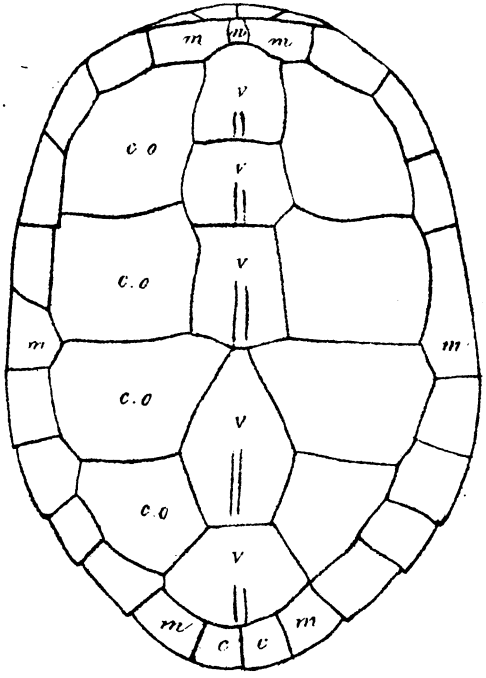

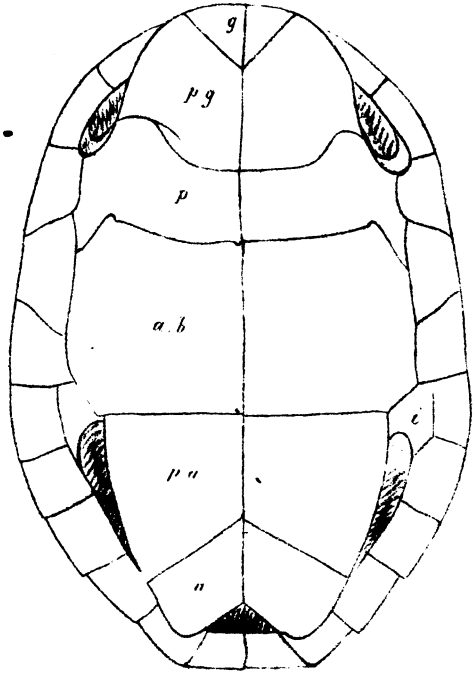

PANGSHURA SMITHI — Nº 27, P. 14.

n.	Nuchal	g	Gulars
v.	Vertebrals	p.g	Post gulars
c.o	Costals	p.	pectorals
m.	Marginals	a.b.	abdominals
c.	Candals	p.a.	Proanals
ax.	Axillary	a.	Anals
i.	Inguinal.		

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